DOCUMENT RESUME

ED 418 210 CE 074 908

AUTHOR Norton, Robert E.; McLennan, Krystyna S.
TITLE DACUM: Bridging the Gap between Work and High Performance.
PUB DATE 1997-10-00
NOTE 90p.; Paper presented at the Annual Conference of the Association of Manufacturing Engineers (Toronto, Ontario, Canada, October 27-30, 1997). For a related document, see CE 075 021.
PUB TYPE Opinion Papers (120) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Adult Education; Competency Based Education; *Curriculum Development; Education Work Relationship; Inplant Programs; *Job Analysis; *Job Skills; *Job Training; *Labor Force Development; Manufacturing Industry; Occupational Information; Postsecondary Education; Secondary Education; Task Analysis; Vocational Education
IDENTIFIERS *DACUM Process

ABSTRACT

The DACUM (Developing A Curriculum) occupational analysis process provides a systematic way to look at worker duties and tasks so that important knowledge, skills, standards, tools, and attitudes can be handed on to the next generation of workers. Revamped by The Ohio State University's Center on Education and Training for Employment, DACUM captures each task in sufficient detail so interventions such as training and development, job reengineering, recruitment, standard operating procedures, and performance standards can be developed and applied effectively. The DACUM process involves a 2-day workshop attended by a trained DACUM facilitator and a panel of 5-12 expert workers from the position or occupation being analyzed. The panel guided by the facilitator work collaboratively to develop a profile chart by breaking the job out into duties and then breaking out each duty into related tasks. Although DACUMs were first introduced to the manufacturing areas of Dofasco, Inc., the fifth largest fully integrated steel mill in North America, they have found their way into many nonmanufacturing areas such as human resources, sales, and purchasing. (The paper is followed by 4 sections that include the following: 29 overheads; instructions for developing performance standards; sample learning guide with terminal performance standard, enabling objectives; learning experience sheets, information sheets, and performance evaluation; and job aids.) (YLB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 418 210

DACUM: Bridging the Gap Between Work and High Performance

AME Conference
October 27-30, 1997 ✦ Toronto, Ontario

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
Ken Clemson
R Norton
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

CE 074 708

BEST COPY AVAILABLE

DACUM: Bridging the Gap Between Work and High Performance

By: Dr. Robert E. Norton - The Ohio State University & Krystyna S. McLennan - Dofasco Inc.

Expert workers know better than anyone else how to describe what they do. But how can they successfully communicate those talents to others? DACUM occupational analysis process provides a systematic way to look at worker duties and tasks so that important knowledge, skills, standards, tools and attitudes can be handed on to the next generation of workers. Rediscovered, revamped, and promoted by The Ohio State University Centre on Education and Training for Employment (CETE), DACUM captures each task in sufficient detail so that interventions such as, training and development, job re-engineering, recruitment, standard operating procedures, and performance standards can be developed and applied effectively.

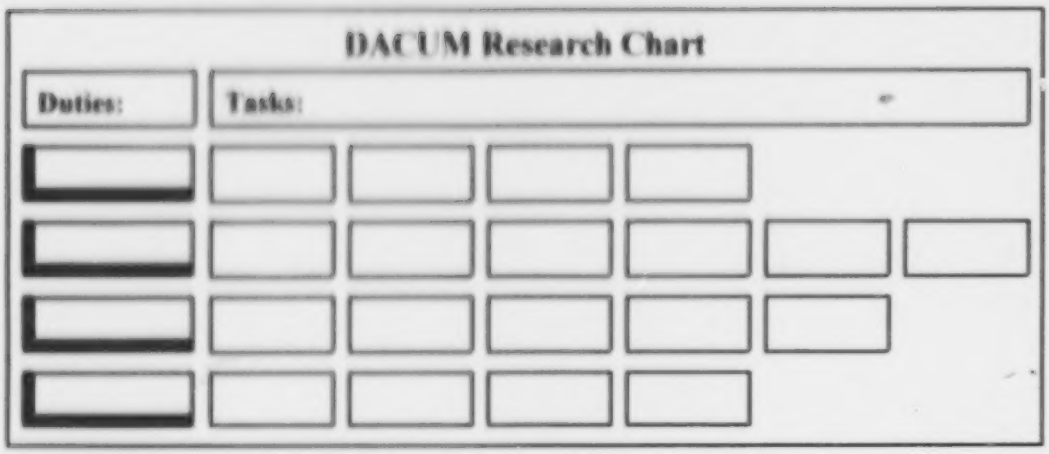
What Is DACUM?

DACUM is an acronym for Developing A Curriculum. It is used widely today as a unique, innovative, and very effective method of job and/or occupational analysis. The DACUM process involves a two-day workshop facilitated by a trained DACUM facilitator and a panel of 5 to 12 expert workers from the position or occupation being analyzed. The profile chart that results from the workshop is a detailed and graphic portrayal of the duties and tasks performed by the workers (see sample chart on page 6). The panel of expert workers guided by the facilitator work in a collaborative effort to define the job by breaking it out into duties and then breaking out each duty into related tasks.

The DACUM Job Profile

Duties are defined as large areas of responsibilities such as "coordinating a program", "maintaining a system" etc. Each duty is then drilled down into tasks such as "developing reports", "revising documents" etc. Tasks are specific, stand alone, measurable units of work that result in a product, service or decision. Tasks may be further broken out into steps through a task analysis process known as SCID (Systematic Curriculum and Instructional Development).

Copyright© No part of this document may be reproduced without written consent from The Ohio State University and Dofasco Inc.



In addition to the development of precise duty and task statements, lists of general knowledge and skills, worker behaviours, tools/equipment/materials/supplies, and future job trends are also identified giving you a comprehensive job profile.

DACUM Philosophy

DACUM is based on three logical premises:

1. *Expert workers can describe and define their job occupation more accurately than anyone else.* Persons who are working full-time in their positions are the real experts on that job. Even though supervisors and managers usually know a lot about their subordinates work, they usually lack the expertise needed for a high quality analysis.

2. *An effective way to define a job occupation is to precisely describe the tasks that expert workers perform.* A successful worker performs a variety of tasks that either the customer or employer wants performed. Possessing positive attitudes and knowledge alone are not enough. Hence, finding out what the expert workers (top performers) do, will give us the opportunity to develop other experts.

3. *All tasks, in order to be performed correctly demand the use of certain knowledge, skills, tools and positive worker behaviours.* While the knowledge, skills, tools, and worker behaviours are not tasks, they are enablers which make it possible for the worker to be successful. Because these four enablers are so important, considerable attention is given during the DACUM workshop to identifying lists of each. Because these attributes are different and distinct from the tasks, it is very important to keep them separate if a high quality analysis of job performance requirements is to be obtained.

DACUM has been used very effectively to analyze occupations at the professional, managerial, technical, skilled, and semi-skilled levels. It has also been used effectively to conceptualize future

jobs, and to analyze portions (selected duties) of one's occupation. Recently, with the increasing emphasis on quality brought forth by the TQM (Total Quality Management), ISO and QS 9000 movements, DACUM also has been used as a basis for developing standard operating procedures, focused training programs and many other interventions.

User's Comments

"DACUM has proven to be a solid foundation upon which organizations can structure and develop both people and company. DACUM almost makes performance development planning, training, and career planning fun! In any case, it's a tool to ensure that a defendable, consistent approach is followed. The information is invaluable in organizational design and development."
Julie Bellamy, Supervisor Human Services, Delphi Interior & Lighting Systems, Division of General Motors Corporation

"This is such a fantastic tool that we decided to go back and re-work the existing training using DACUM. DACUM is the most cost effective and efficient analysis tool I have ever worked with. It's amazing that something so fast and easy can be so powerful."
Guy Grindborg, Manager Human Resources Competency, Ericsson Inc. Radio Systems

DACUM's at Dofasco

Dofasco Inc. is the 5th largest fully integrated steel mill in North America. Due to the economic down turn of the late 1980's, Dofasco like it's American counter parts, was forced to down-size. In the early 1990's, the workforce was reduced from 12,000 employees to 7,000. During this transition period, many of the remaining employees were reassigned to different jobs and project teams, therefore; much of the focus turned to re-training.

The DACUM process was used to profile key jobs within many of the manufacturing areas across the organization. The job profiles provided a solid foundation for developing job specific training programs, learning guides, and even standard operating procedures that satisfied the QS 9000 requirements.

Once the training programs and standard operating procedures were in place and the crisis of down-sizing somewhat under control, other uses of DACUM were discovered. DACUM's were used as an input for job re-engineering, recruitment and the development of performance evaluations. They also provided a common understanding for both supervision and employees with respect to what the job entails. Key decisions could be made about work flow, task overload, and job inefficiencies based on real data as opposed to management perceptions.

Task Rating Scale

The task rating scale identifies highly critical tasks. Each task on the DACUM profile is rated on a scale of 1 to 6 on each of the following categories:

Rating	Frequency	Criticality	Learning Difficulty
1	Once or Twice a Year	Little to No Impact *(Has absolutely no negative impact on customers, costs, safety etc.)*	Innate Skills *(No explanation required)*
2	Once or Twice a Quarter	Small Impact *(Could result in minor inconveniences, delays, etc. unknown to the customer)*	Simple *(Requires some explanation)*
3	Once or Twice a Month	Moderate Impact *(Could result in annoyed customer, work hold up, etc.)*	Basic *(Requires explanation with a demonstration)*
4	Once or Twice a Week	Noticeable Impact *(Could result in strained customer relationship, verbal warning, work delays, etc.)*	Moderately Difficult *(Requires demonstration and coaching)*
5	Once or Twice a Day/ Shift	Serious Impact *(Could result in damaged customer relationships, disciplinary actions, safety infraction, etc.)*	Difficult *(Requires formal training)*
6	Several Times a Day/ Shift	Catastrophic Impact *(Could result in injury, loss of customers or job, high costs, etc.)*	Extremely Difficult *(Requires formal training, evaluation and on the job monitoring)*

Frequency: *How often is the task performed?*
Criticality: *If the task wasn't performed correctly or wasn't performed at all what would the impact be?*
Learning Difficulty: *For a new recruit, how difficult would it be for them to learn the task?*

This rating process enables the sorting of tasks into highly critical (those tasks that are rated 5 and 6 under the criticality scale) moderately critical (those tasks that are rated 3 and 4 under the criticality scale) and low critical tasks (those tasks that are rated 1 and 2 under the criticality scale).

Job Re-Engineering

The tasks that are rated as highly critical require the development of formal training programs and explicit standard operating procedures, especially if they were also rated as hard or difficult to learn. The tasks that are rated as moderately difficult require the development of standard operating procedures and learning guides or job aids. Tasks that are rated as low on the criticality scale are good candidates for re-engineering especially those that are also rated at a high

BEST COPY AVAILABLE

frequency. They need to be assessed to determine the level of value they add to the organization and if deemed as low value added, they should be eliminated.

Duplication of tasks among jobs can also be identified by reviewing profiles from various jobs simultaneously and recognizing similar tasks. A simple investigation would determine whether the tasks are in fact duplicated. Again these duplicated tasks are good candidates for re-engineering.

Recruitment

DACUM profiles provide valuable information that contributes to the recruitment process. Skills, knowledge, key behaviours, along with tools and equipment used on the job are all identified. This enables recruitment advertisements to be very job specific with responsibilities, skill, knowledge etc. clearly defined. The DACUM job profile serves as a detailed job description for new recruits providing them with a clear understanding of their responsibilities.

Performance Evaluations

A performance standard can be developed for each task on the DACUM profile. As a result, employee performance evaluations are based on an objective standard as opposed to the more traditional subjective performance evaluations still in practice. Due to explicit performance standards employees know what is expected and in many cases can conduct self assessments.

Summary

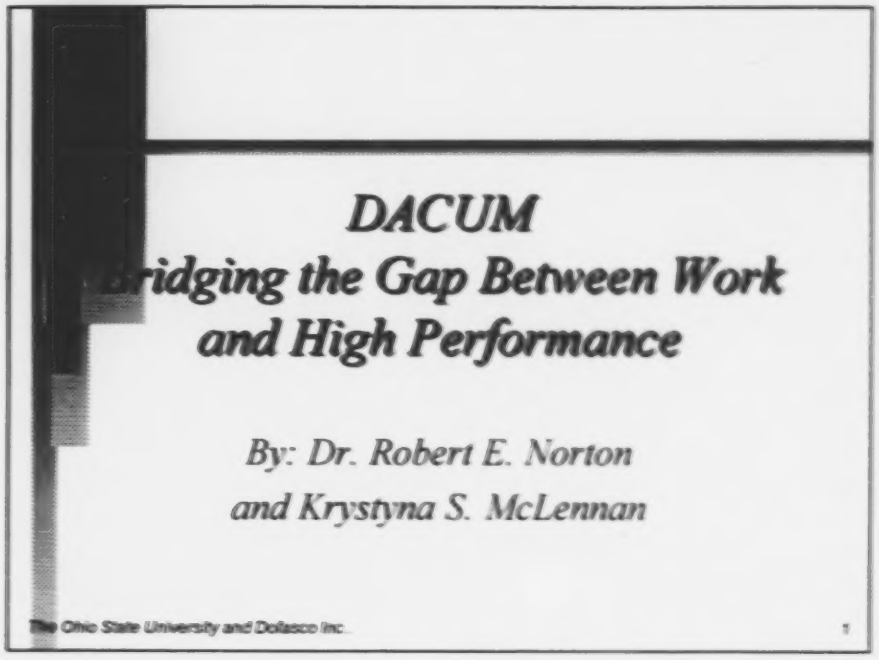
Although DACUM's were first introduced to the manufacturing areas of Dofasco, they have now found their way into many non-manufacturing areas such as Human Resources, Sales, and Purchasing. They have been very instrumental in identifying training needs, highlighting tasks for re-engineering, determining what to train, providing the foundation for developing performance standards, providing input into recruitment postings, identifying tasks that require standard operating procedures and just on their own - serving as a detailed job description.

The ability to: recruit the right people into the right jobs; re-engineer a job into a higher level of efficiency through the elimination of low value-added and duplicated tasks; develop job specific training programs and job aids; evaluate employee performance based on performance standards; is the bridge between work and high performance.

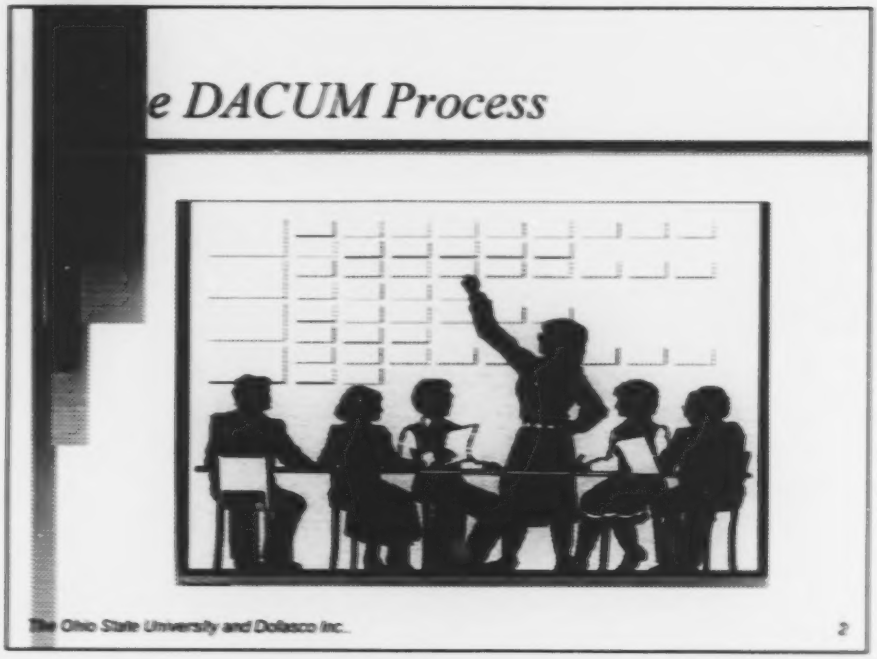
For information on the DACUM process, contact:
Robert E. Norton, PhD
DACUM/SCID Program Director
Centre on Education and Training for Employment
- College of Education
The Ohio State University
1900 Kenny Road
Columbus, OH 43210
Phone (614) 292-4353 (ext. 47667) Fax (614) 292.1260
Internet: norton.1@osu.edu

For information on DACUM applications at Dofasco Inc., contact:
Krystyna S. McLennan
Strategy & Planning
Human Resources
Dofasco Inc.
P.O. Box 2460
Hamilton, Ontario
L8N 3J5
Phone (905) 548-7105 Fax (905) 548-4311
Internet: krystyna_mclennan@dofasco.ca

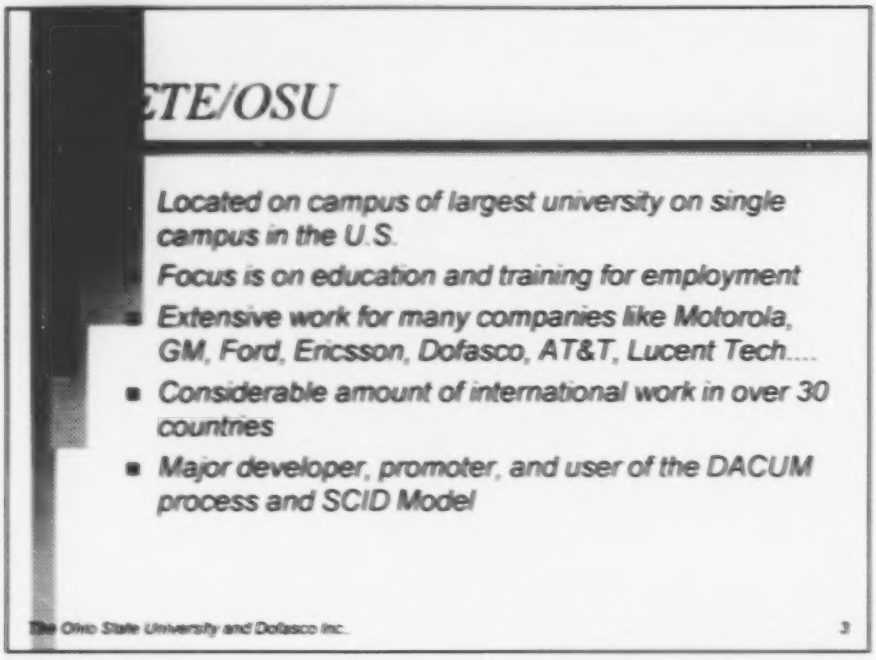
BEST COPY AVAILABLE


DACUM
Bridging the Gap Between Work and High Performance
By: Dr. Robert E. Norton
and Krystyna S. McLennan
The Ohio State University and Dofasco Inc.
1

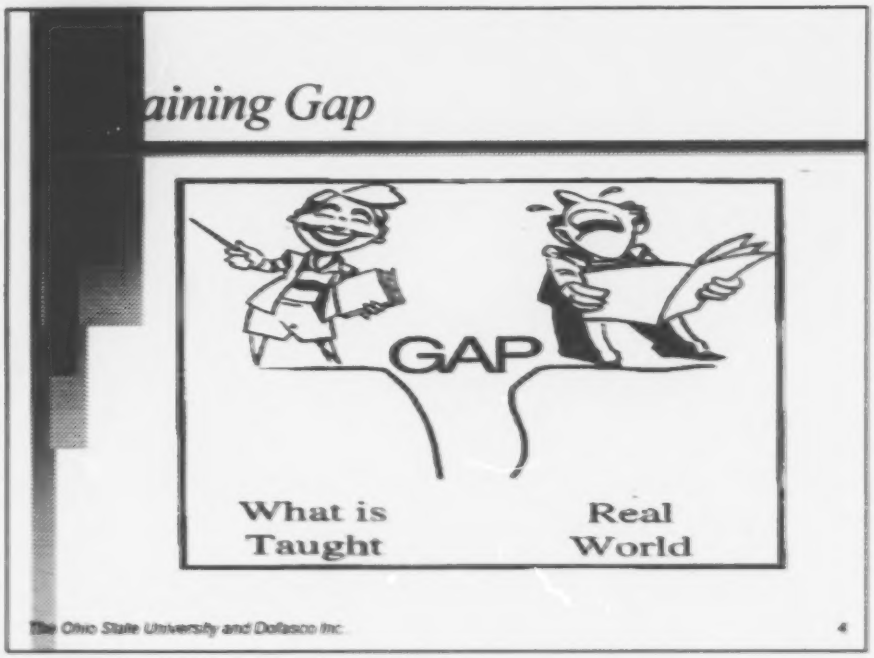
Notes:



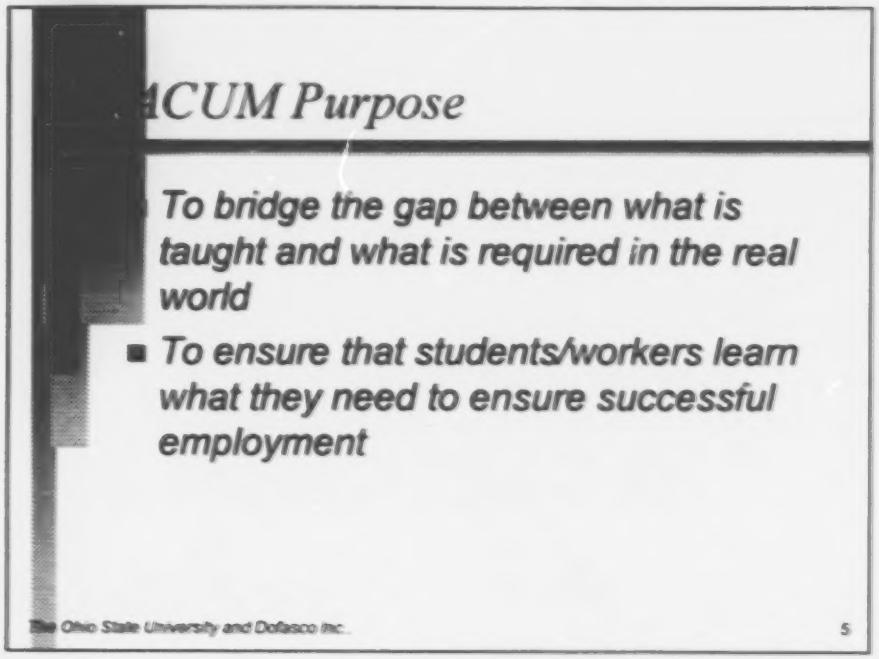
Notes:


ETE/OSU
Located on campus of largest university on single campus in the U.S.
Focus is on education and training for employment
Extensive work for many companies like Motorola, GM, Ford, Ericsson, Dofasco, AT&T, Lucent Tech....
Considerable amount of international work in over 30 countries
Major developer, promoter, and user of the DACUM process and SCID Model
The Ohio State University and Dofasco Inc.
3

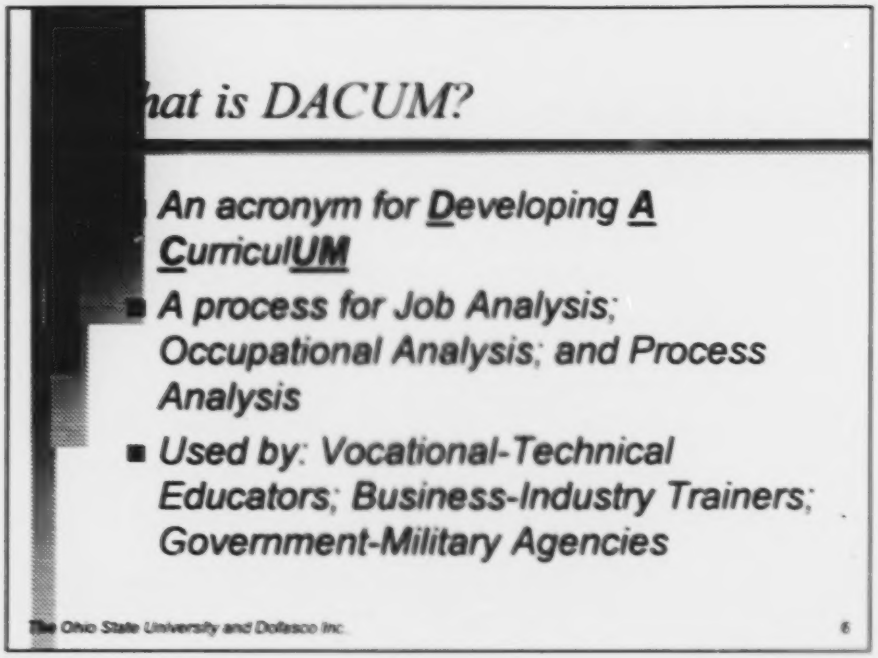
Notes:


aining Gap
GAP
What is Taught
Real World
The Ohio State University and Dofasco Inc.
4

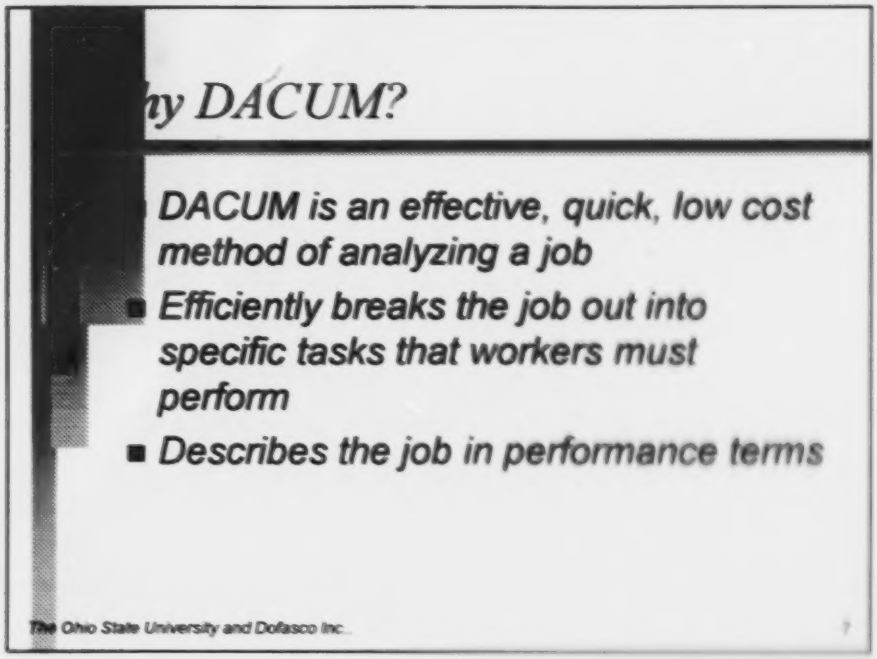
Notes:


ACUM Purpose
To bridge the gap between what is taught and what is required in the real world
To ensure that students/workers learn what they need to ensure successful employment
The Ohio State University and Dofasco Inc.
5

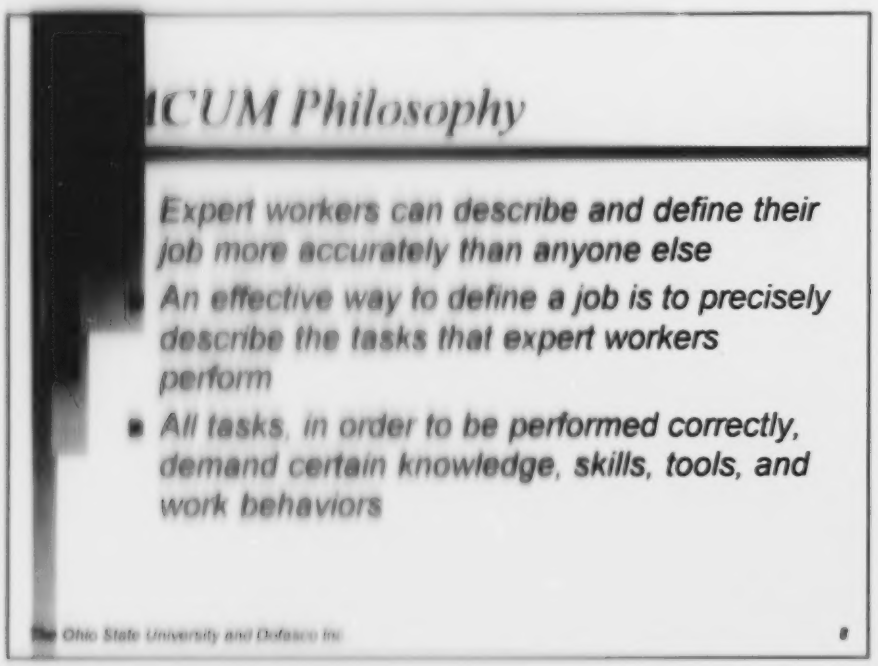
Notes:


hat is DACUM?
An acronym for Developing A CurriculUM
A process for Job Analysis; Occupational Analysis; and Process Analysis
Used by: Vocational-Technical Educators; Business-Industry Trainers; Government-Military Agencies
The Ohio State University and Dofasco Inc.
6

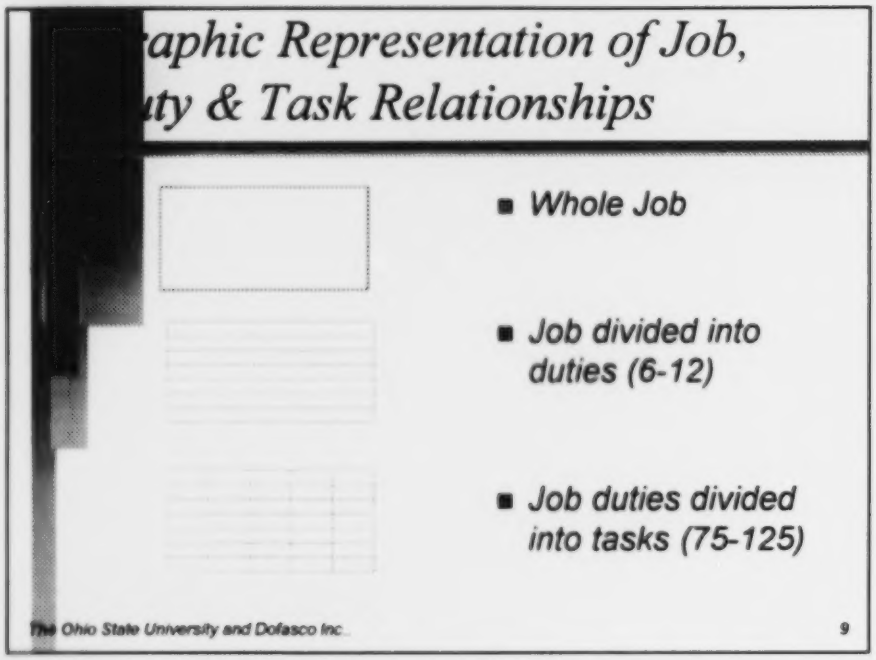
Notes:


hy DACUM?
DACUM is an effective, quick, low cost method of analyzing a job
Efficiently breaks the job out into specific tasks that workers must perform
Describes the job in performance terms
The Ohio State University and Dofasco Inc..
7

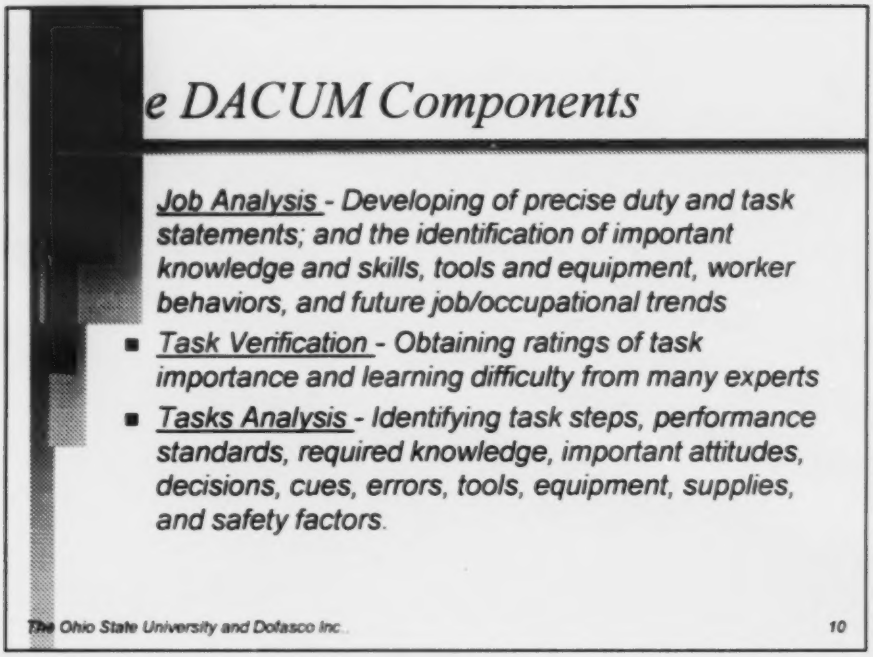
Notes:


ICUM Philosophy
Expert workers can describe and define their job more accurately than anyone else
An effective way to define a job is to precisely describe the tasks that expert workers perform
All tasks, in order to be performed correctly, demand certain knowledge, skills, tools, and work behaviors
The Ohio State University and Dofasco Inc
8

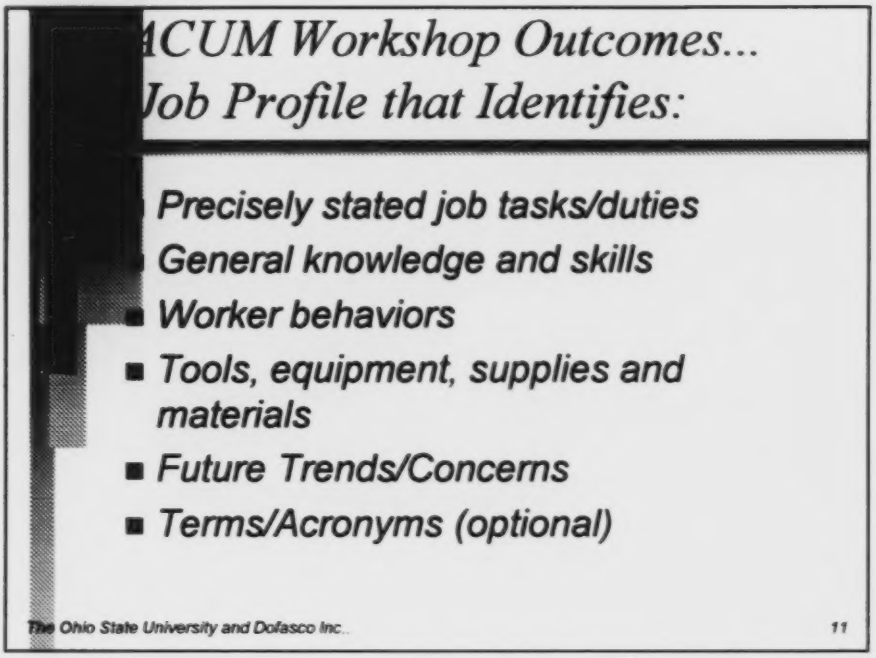
Notes:


aphic Representation of Job,
ty & Task Relationships
Whole Job
Job divided into duties (6-12)
Job duties divided into tasks (75-125)
The Ohio State University and Dofasco Inc.
9

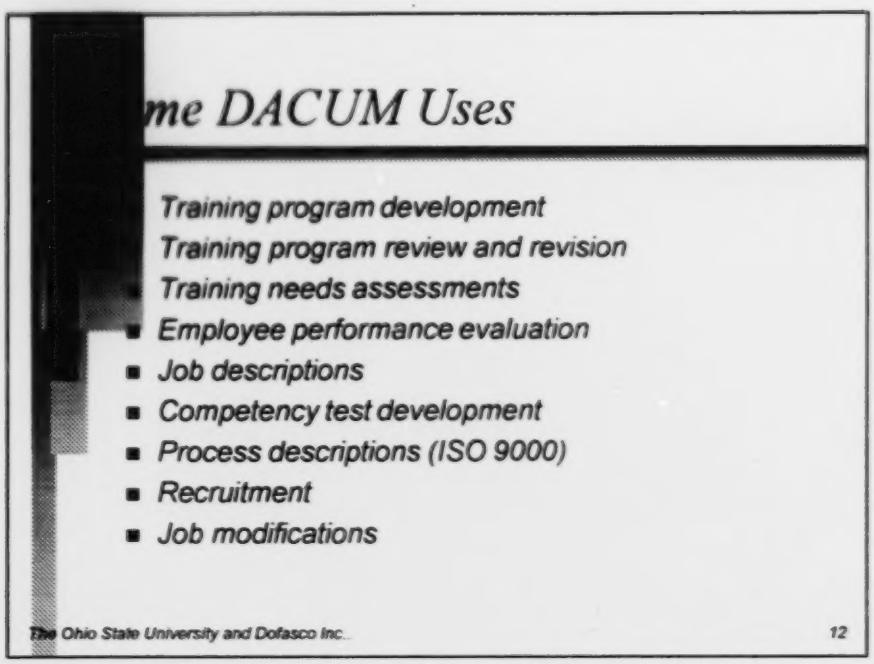
Notes:


e DACUM Components
Job Analysis - Developing of precise duty and task statements; and the identification of important knowledge and skills, tools and equipment, worker behaviors, and future job/occupational trends
Task Verification - Obtaining ratings of task importance and learning difficulty from many experts
Tasks Analysis - Identifying task steps, performance standards, required knowledge, important attitudes, decisions, cues, errors, tools, equipment, supplies, and safety factors.
The Ohio State University and Dofasco Inc..
10

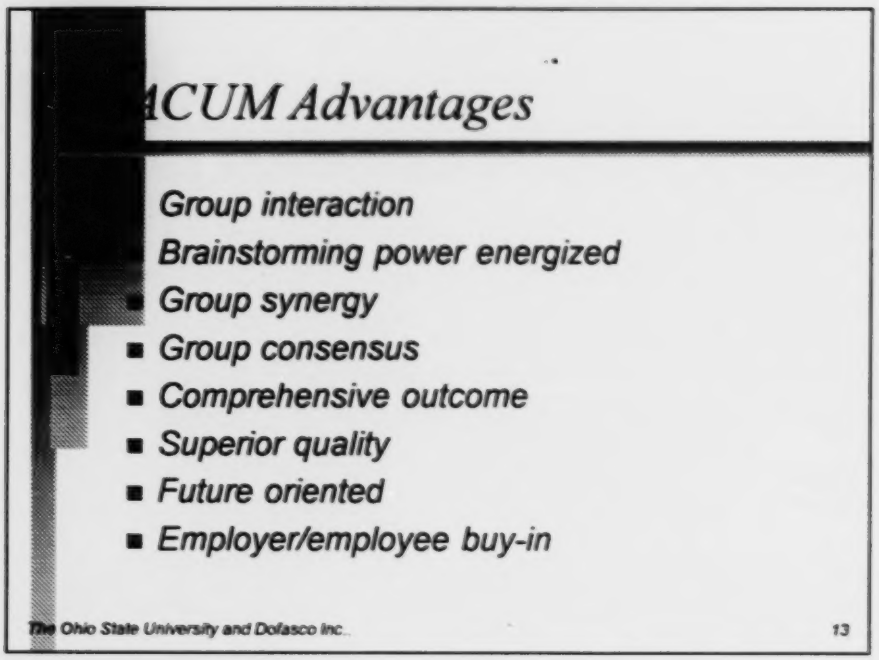
Notes:


ICUM Workshop Outcomes...
Job Profile that Identifies:
Precisely stated job tasks/duties
General knowledge and skills
Worker behaviors
Tools, equipment, supplies and materials
Future Trends/Concerns
Terms/Acronyms (optional)
The Ohio State University and Dofasco Inc..
11

Notes:


me DACUM Uses
Training program development
Training program review and revision
Training needs assessments
Employee performance evaluation
Job descriptions
Competency test development
Process descriptions (ISO 9000)
Recruitment
Job modifications
The Ohio State University and Dofasco Inc..
12

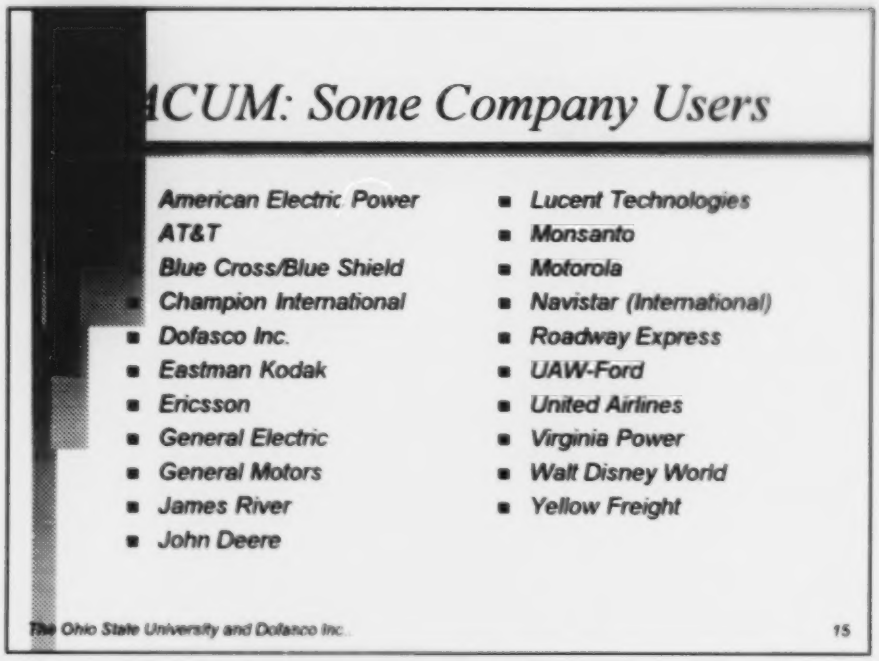
Notes:


ACUM Advantages
Group interaction
Brainstorming power energized
Group synergy
Group consensus
Comprehensive outcome
Superior quality
Future oriented
Employer/employee buy-in
The Ohio State University and Dofasco Inc..
13

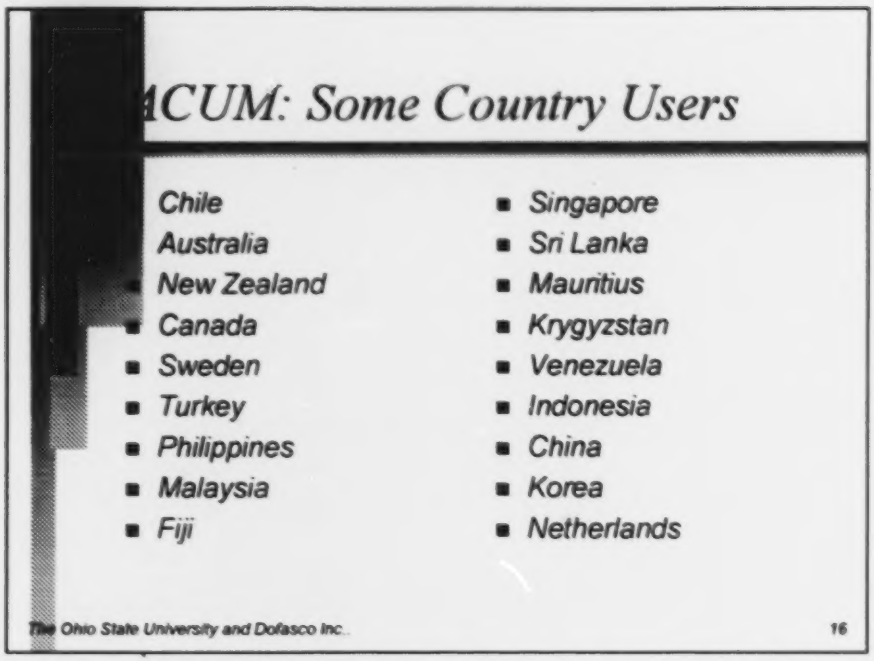
Notes:

mments from GM Trainers
"Solid foundation for development"
"Efficient: 2 days vs. 6 weeks"
"Specific vs. general job specifications"
"Employee involvement and buy-in"
"Use of expert panel members"
"Identification of critical tasks"
"Opportunity for sharing ideas"
The Ohio State University and Dofasco Inc..
14

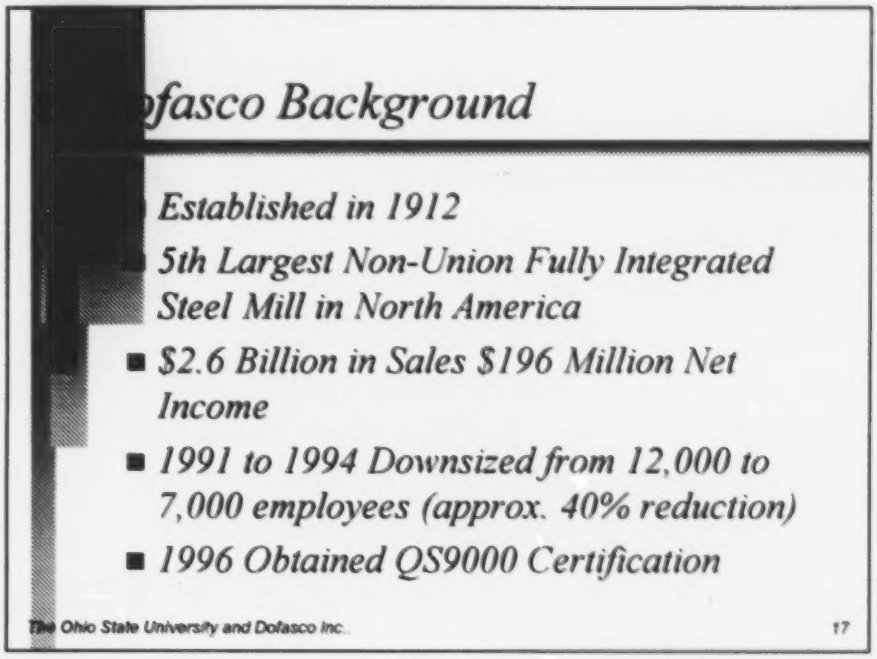
Notes:


ACUM: Some Company Users
American Electric Power
AT&T
Blue Cross/Blue Shield
Champion International
Dofasco Inc.
Eastman Kodak
Ericsson
General Electric
General Motors
James River
John Deere
Lucent Technologies
Monsanto
Motorola
Navistar (International)
Roadway Express
UAW-Ford
United Airlines
Virginia Power
Walt Disney World
Yellow Freight
The Ohio State University and Dofasco Inc..
15

Notes:


ACUM: Some Country Users
Chile
Australia
New Zealand
Canada
Sweden
Turkey
Philippines
Malaysia
Fiji
Singapore
Sri Lanka
Mauritius
Krygyzstan
Venezuela
Indonesia
China
Korea
Netherlands
The Ohio State University and Dofasco Inc..
16

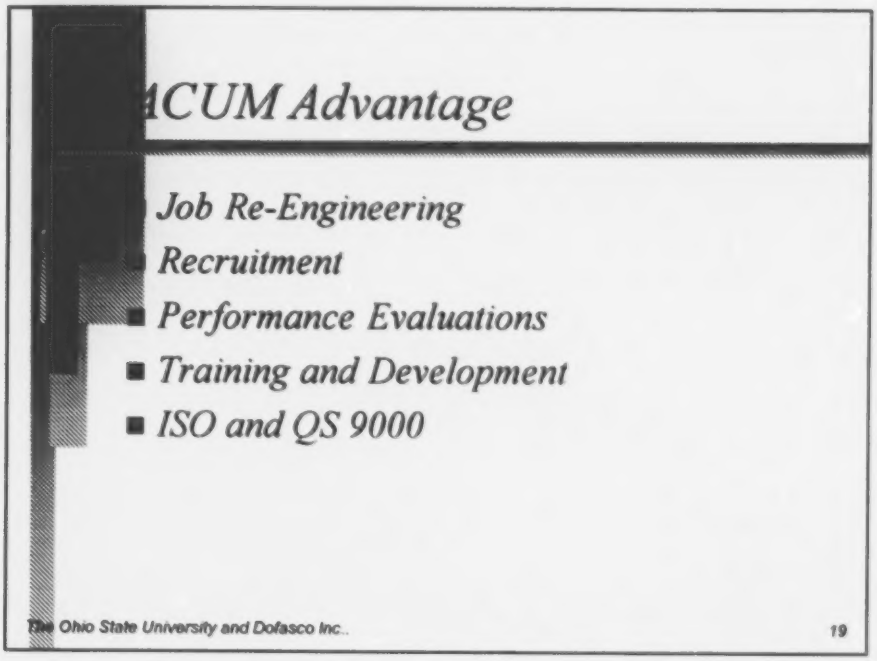
Notes:


ofasco Background
Established in 1912
5th Largest Non-Union Fully Integrated Steel Mill in North America
$2.6 Billion in Sales $196 Million Net Income
1991 to 1994 Downsized from 12,000 to 7,000 employees (approx. 40% reduction)
1996 Obtained QS9000 Certification
The Ohio State University and Dofasco Inc..
17

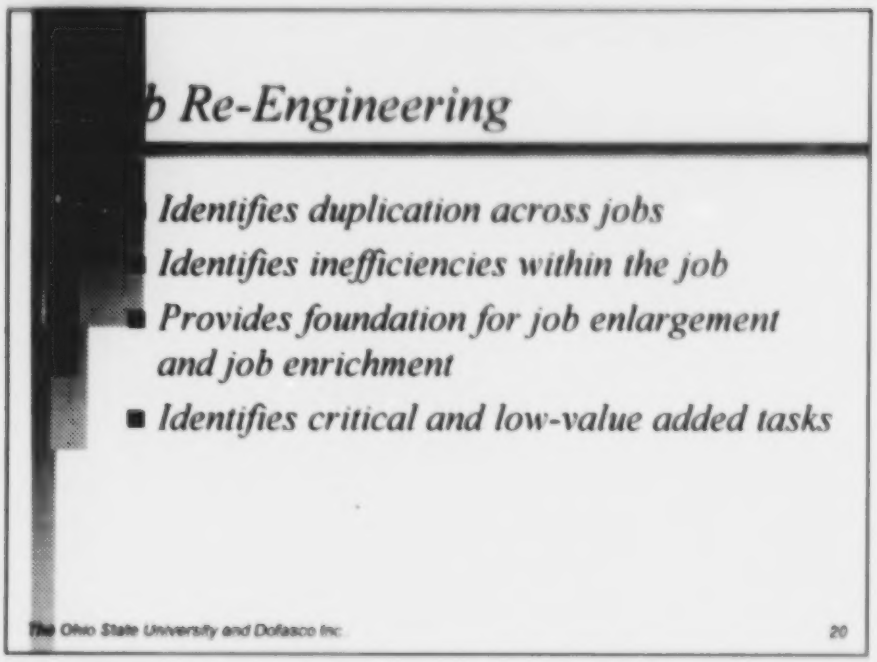
Notes:

"Our Product is Steel,
Our Strength is People"
The Ohio State University and Dofasco Inc..
18

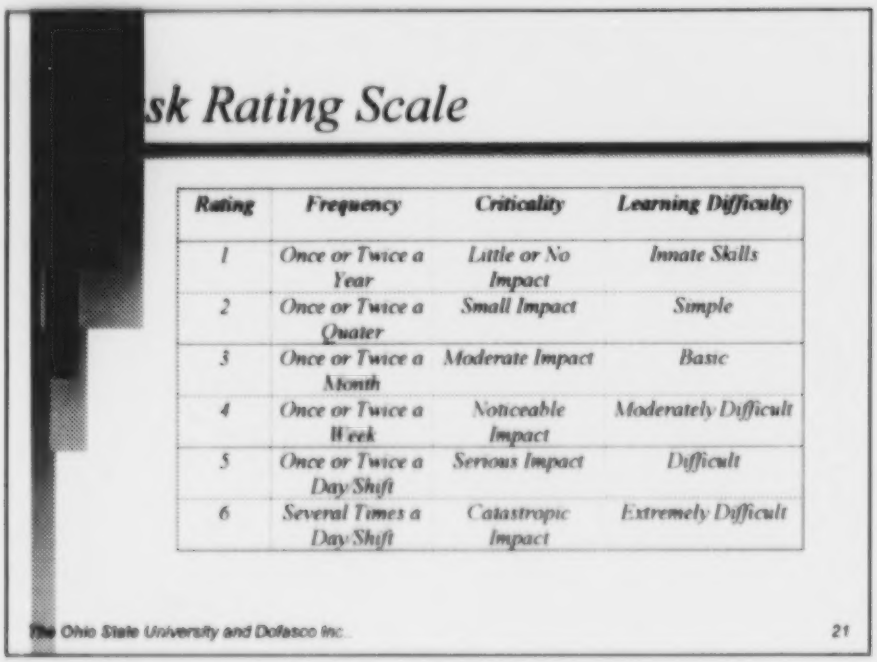
Notes:


ACUM Advantage
Job Re-Engineering
Recruitment
Performance Evaluations
Training and Development
ISO and QS 9000
The Ohio State University and Dofasco Inc..
19

Notes:

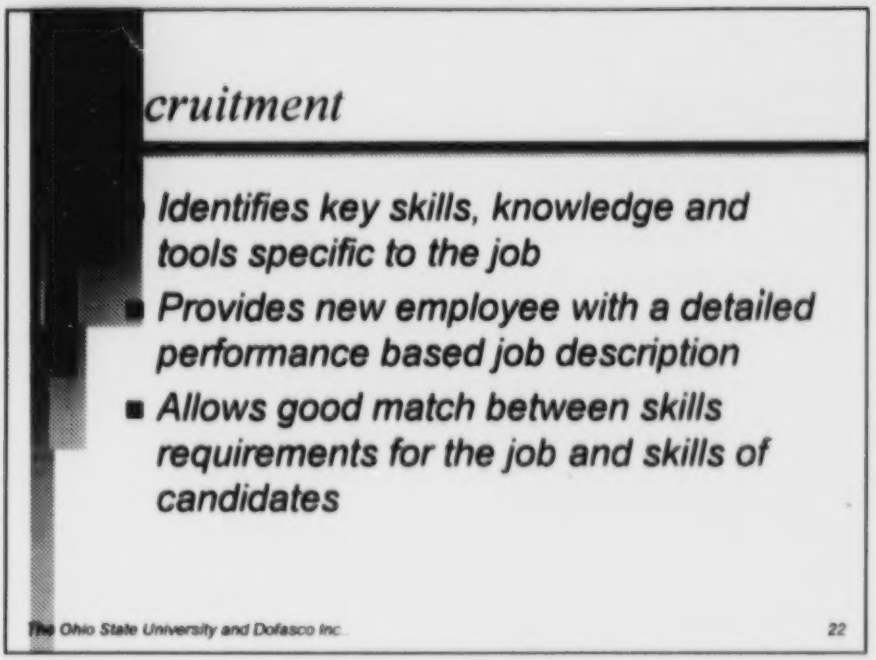

b Re-Engineering
Identifies duplication across jobs
Identifies inefficiencies within the job
Provides foundation for job enlargement and job enrichment
Identifies critical and low-value added tasks
The Ohio State University and Dofasco Inc.
20

Notes

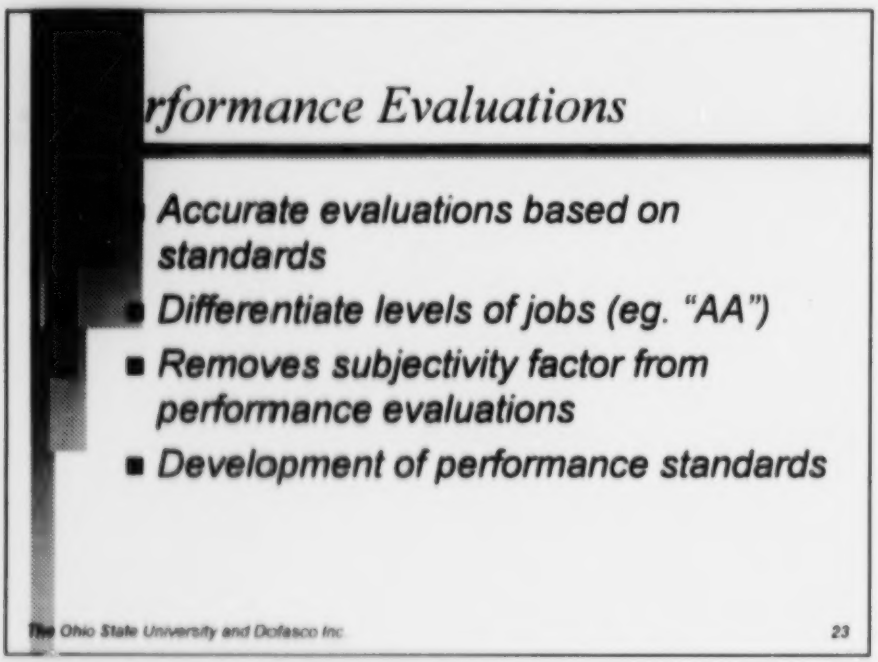


Notes:

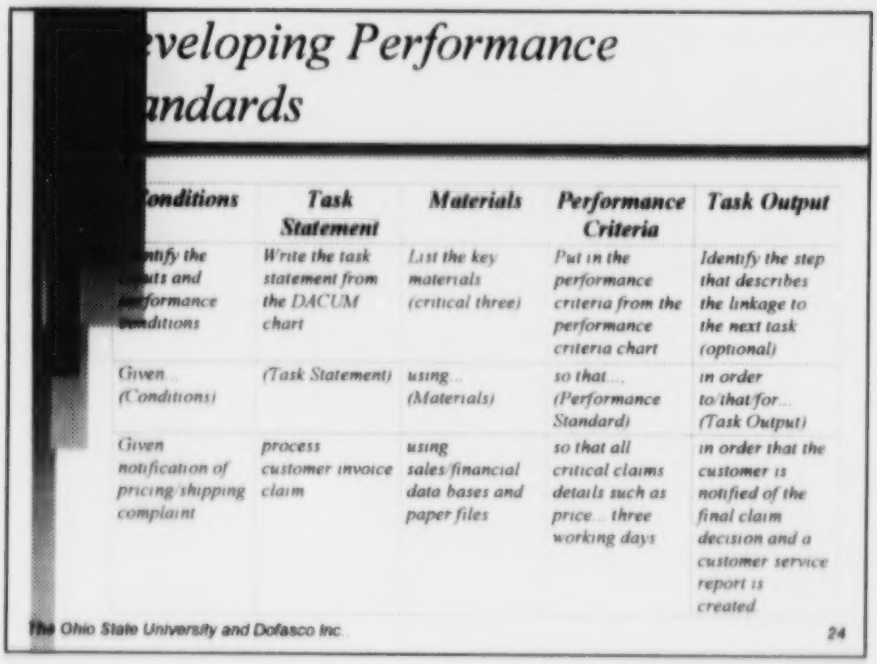
BEST COPY AVAILABLE


cruitment
Identifies key skills, knowledge and tools specific to the job
Provides new employee with a detailed performance based job description
Allows good match between skills requirements for the job and skills of candidates
The Ohio State University and Dofasco Inc.
22

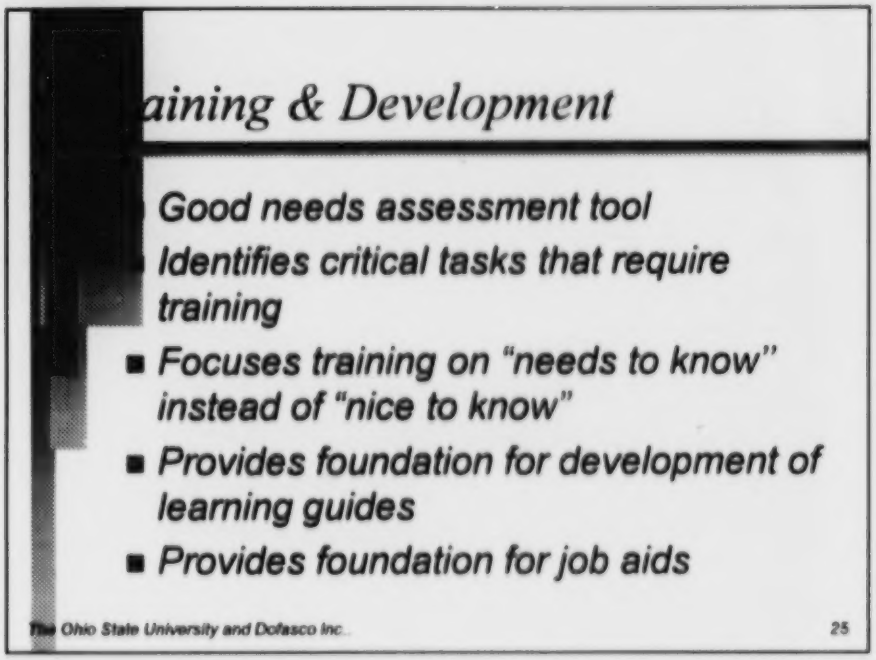
Notes:


rformance Evaluations
Accurate evaluations based on standards
Differentiate levels of jobs (eg. "AA")
Removes subjectivity factor from performance evaluations
Development of performance standards
The Ohio State University and Dofasco Inc.
23

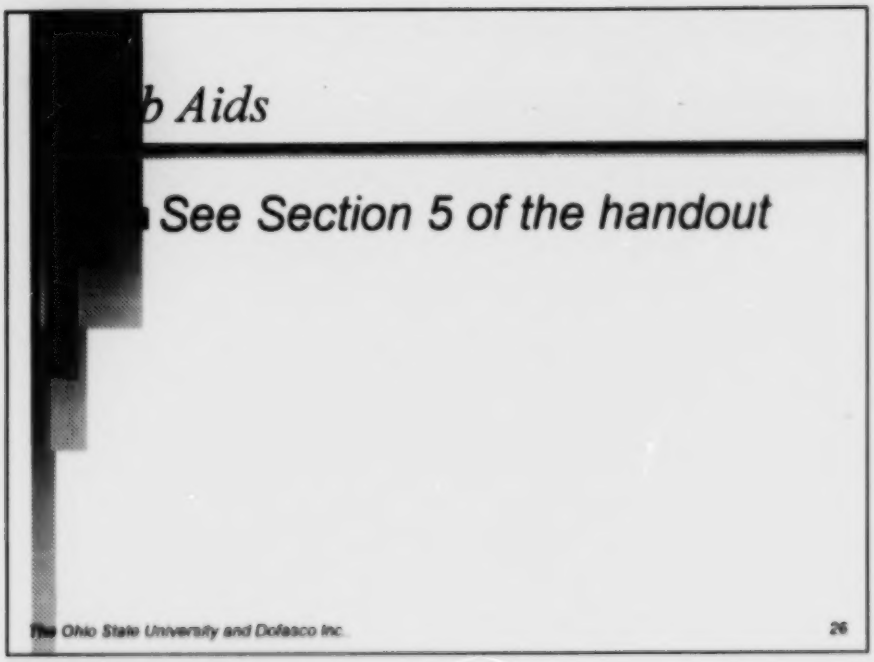
Notes:


veloping Performance
ndards
onditions
Task Statement
Materials
Performance Criteria
Task Output
ntify the uts and rformance nditions
Write the task statement from the DACUM chart
List the key materials (critical three)
Put in the performance criteria from the performance criteria chart
Identify the step that describes the linkage to the next task (optional)
Given... (Conditions)
(Task Statement)
using... (Materials)
so that.... (Performance Standard)
in order to/that/for... (Task Output)
Given notification of pricing/shipping complaint
process customer invoice claim
using sales/financial data bases and paper files
so that all critical claims details such as price... three working days
in order that the customer is notified of the final claim decision and a customer service report is created
The Ohio State University and Dofasco Inc.
24

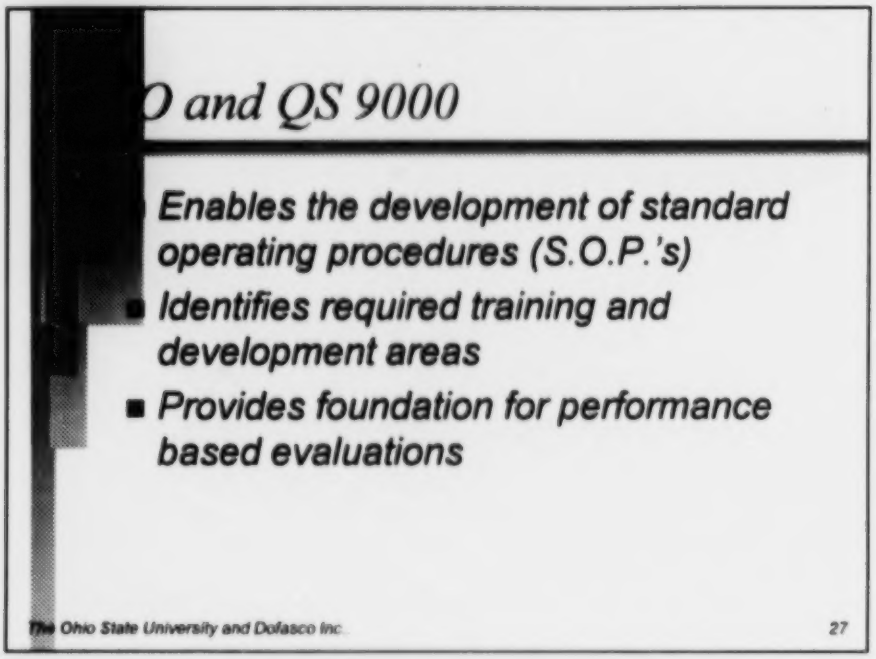
Notes:


aining & Development
Good needs assessment tool
Identifies critical tasks that require training
Focuses training on "needs to know" instead of "nice to know"
Provides foundation for development of learning guides
Provides foundation for job aids
The Ohio State University and Dofasco Inc.
25

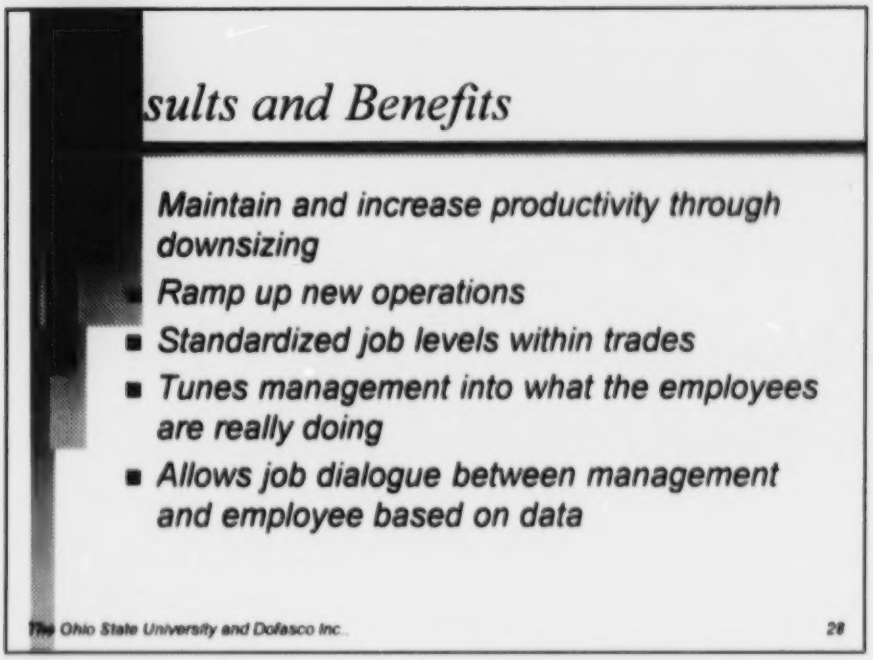
Notes:


b Aids
See Section 5 of the handout
The Ohio State University and Dofasco Inc.
26

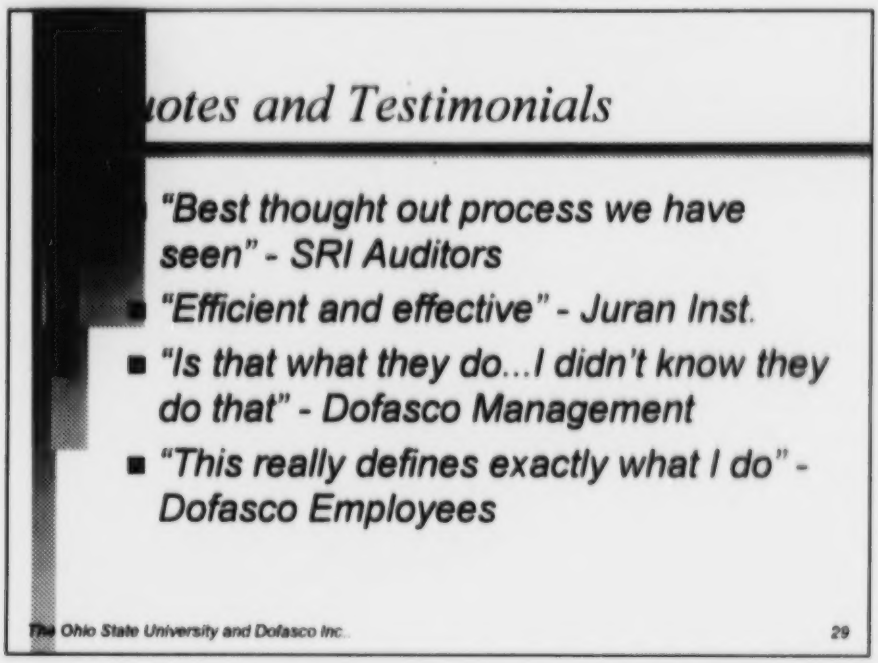
Notes:


O and QS 9000
Enables the development of standard operating procedures (S.O.P.'s)
Identifies required training and development areas
Provides foundation for performance based evaluations
The Ohio State University and Dofasco Inc.
27

Notes:


sults and Benefits
Maintain and increase productivity through downsizing
Ramp up new operations
Standardized job levels within trades
Tunes management into what the employees are really doing
Allows job dialogue between management and employee based on data
The Ohio State University and Dofasco Inc..
28

Notes:


uotes and Testimonials
"Best thought out process we have seen" - SRI Auditors
"Efficient and effective" - Juran Inst.
"Is that what they do...I didn't know they do that" - Dofasco Management
"This really defines exactly what I do" - Dofasco Employees
The Ohio State University and Dofasco Inc.
29

Notes:

Developing Performance Standards

Prepare the standard statement for by including the following:

Conditions	Task Statement	Materials	Performance Criteria	Task Output
Eg. Under supervision, given claims data such as amount, customer, product	prepare claims form	using a computer and claim report	so that the form is 100% completed without errors within 30 minutes.	in order to process claim.

Conditions

Conditions refer to what is given or used to complete the task. These can be quickly identified as the inputs as well as any other performance conditions associated with the task. There are a few standard questions that the facilitator can ask to elicit the conditions:

- What are the inputs?
- Is the task to be completed under supervision, alone or with others?
- Does the worker use job aids, checklists, manuals or other documents to perform the task?
- Are there any special conditions[1] under which the task is performed eg. emergency, rush etc.?
- Does the worker need any type of certification to perform the task?

Task Statement

The task statement is taken from the DACUM chart.

Materials

List three or four most critical materials from matrix 2.

Performance Criteria

Determine the performance criteria by identifying the following elements: Timeliness, Accuracy, Specifications, Attributes, and Completeness (from matrix 2). The following chart provides

---

[1]Note: Sometimes the special conditions will dictate the need to identify an additional task statement. This is because the performance criteria might be different for normal versus unusual conditions.

BEST COPY AVAILABLE

questions which will help elicit criteria:

Output Criteria	Questions
Timely (Timely)	Is there a timeframe in which the task must be completed?
Accuracy (Accuracy)	Is there a level of error that is allowed?
Specifications (Specs)	Are there customer/department/supplier criteria's which affect the task performance?
Attributes (Attributes)	Are there particular attributes which must be demonstrated during the performance of the task?
Completeness (Comp)	How much of this task must be completed? Is there a specified quantity of units/items that must be produced?

Task Output

The task output is optional and could be included at the end of the performance standard to describe the linkage to a following task.

Putting it all Together

Use the following aid to help prepare your performance standards:

Conditions	Task Statement	Materials	Performance Criteria	Task Output
Identify the inputs and performance conditions	Write the task statement from the DACUM chart here.	List the key materials (critical three) here.	Put in the performance criteria from the performance criteria chart (above).	Optional step that describes linkage to next task.

Note that the performance standard is written as a statement which includes the conditions, materials, task statement, performance criteria and activity outcome. The formula is as follows:

Given (conditions), (task statement), using (materials), so that (performance criteria) in order to/that/for (task output).

Use matrix 4 to help you prepare your performance standard.

BEST COPY AVAILABLE

Matrix 2: Identification of Knowledge, Skills & Attributes

Job Title: *Claims Resolution Invoice Processor*				Functional Area: *Commercial Department*			Page 1 of 1
Task	**Output Criteria**			**Materials**	**Skills**	**Knowledge**	**Attributes**
	Timely	Accuracy	Comp. / Specs.				
Process Customer Invoice Claim	*Not to exceed 3 working days*	*Researched evidence matches recorded discrepancy* *Shipping & complaints are supported by documents*	*Researched evidence sufficient for justification* *All support documents are completed, available and distributed*	*None*	***For Pricing:*** *- JV70 Screen* *- OP10* *- Order card* *- Telephone Order Form* *- Customers P.O. confirmation* *- Dofasco Order acknowledgment* *- Pricing letters* *- Excel pricing spreadsheet* *- Customer's release report* ***For Shipping:*** *-Bill of lading* *- Lift tickets* *-Order history screens*	***Ability to:*** *- Assess data to determine completeness* *- Apply justification criteria*	***Knowledge of:*** *- Data requirements for processing claims* *- Source and location of data eg. location of storage for Bill of Lading* *- Dofasco process and product* *- Sales force, Account Reps and customer's account base* *- Bill of lading legalities* *- Criteria for justification*	*- Attention to detail* *- Able to work independently* *- Follow through to completion* *- Decisive*

DOFASCO

BEST COPY AVAILABLE

Matrix 4: Building Performance Standards Data Collection Sheet				
Conditions	**Task Statement**	**Materials**	**Performance Criteria**	**Task Output (Optional)**
Given...		**using...**	**so that ...**	**in order to/that/for...**
notification of pricing/shipping complaint.	*process customer invoice claim.*	*sales/financial databases and paper files.*	*all critical claim details such as price discrepancy and weight discrepancy, are accurately and completely recorded, fully supported by: completed pricing documents such as, bills of lading or lift tickets, and the claim justification is resolved within three days*	*the customer is notified of the final claim decision and a customer service report is created.*

DOFASCO

BEST COPY AVAILABLE

LEARNING GUIDE

DOFASCO

Department: Commercial
Job: Claims Administrator
Issue Date: October 2, 1997
Revision Date: October 14, 1997

TASK STATEMENT: Process Customer Invoice Claims

LEARNING GUIDE: #003 **TASK CODE:** CI 001

PREREQUISITE TASK(S): Claims Administrator - Material Claims: Learning Guide 002; Task Code CM 102

TERMINAL PERFORMANCE STANDARD

Given notification of pricing/shipping complaint, process customer invoice claim, using sales/financial data bases and paper files, so that all critical claims details such as price discrepancy or weight discrepancy, are accurately and completely recorded, fully supported by completed pricing documents such as pricing letters or customer's P.O. confirmation, and shipping documents such as, bills of lading or lift tickets, and the claim justification is resolved within three working days, in order that the customer is notified of the final claim decision and a customer service report is created.

TIME FRAME FOR TASK PERFORMANCE: A maximum cycle time of three working days. A competent worker can complete the task in approximately one half hour.

ENABLING OBJECTIVES:

Knowledge: Knowledge of

- Data requirements for processing claims
- Source and location of data
- Dofasco process and product
- Sales force, account reps, and customer accounts base
- Bills of lading legalities
- Criteria for claims justification

Skills: Ability to

- Assess data to determine completeness
- Apply justification criteria
- Process procedural steps as outlined in the S.O.P.

Attributes: Ability to

- Attend to written detail
- Identify missing, inconsistent or inaccurate data points
- Assess your own work for completeness and accuracy
- Accept or reject claims

BEST COPY AVAILABLE

LEARNING GUIDE: Introduction

This learning guide was prepared as a **sample document** for Dofasco Inc. by Dr. John Hart and Ann Dean of Humber College. The information contained within this learning guide has not been validated by the subject matter experts and therefore may not be an accurate representation of the task. The difference between this sample document and standard learning guides is that standard learning guides will reference S.O.P.'s as opposed to including them within the appendix section as seen in this sample document. Permission to reproduce any portion of this document must be obtained from Dofasco Inc. Copyright Dofasco©

Purpose:

This learning guide was developed as a resource for the trainer and the trainee. It was assumed that the trainee would have access to supervision and feedback while learning the new task. As a result, self-check instruments were not developed as part of this guide. The trainee is referred to the Claims Resolution standard operating procedure, section 4.0, pages 14 through 16, Claims Resolution - Invoice Claims, which appears as Appendix 'A' to this learning guide.

This guide is designed to provide opportunities for the trainee to master the competency to **Process Customer Invoice Claims.**

Responsibilities:

The supervisor/instructor is responsible for guiding and supporting the learner in the development of the knowledge, skills and attributes, as outlined in the enabling objectives, required to meet the terminal performance standard.

Management is responsible for providing the time, materials, instructors and support to the trainee.

The trainee is responsible for acquiring the knowledge, skills and attributes necessary to meet the terminal performance standard.

BEST COPY AVAILABLE

LEARNING GUIDE: Learning Experience Sheets

Enabling Objective(s):

- Knowledge of data requirements for processing claims
- Ability to assess data to determine completeness
- Ability to attend to written detail
- Ability to identify missing, inconsistent or inaccurate data points

Learning Experience Number One (1):

The trainer and the trainee will review the Claims Resolution - Invoice Claims process as outlined in the high level flowchart, page 13 of Appendix 'A' to this learning guide.

The trainer and the trainee will review the forms and samples, including the screen captures, as shown in the information sheets for this learning experience.

The trainer will demonstrate the completing of all screens and forms related to the determination of justification for a customers complaint. The trainer will list the data requirements for processing claims.

Under supervision, the trainee will practise entering the customer's information and information received from accounts receivable, into the screens and forms as previously demonstrated by the trainer.

Under supervision, the trainee, provided with samples (order cards, telephone order forms, fax/E-mail, or verbal direction) will assess the completeness of the data provided. The trainee will identify any missing, inconsistent or inaccurate data points.

LEARNING GUIDE: Information Sheet

Enabling Objective(s):

- Knowledge of data requirements for processing claims
- Ability to assess data to determine completeness
- Ability to attend to written detail
- Ability to identify missing, inconsistent or inaccurate data points

Learning Experience Number One (1):

Samples required:

1. Screen captures for IV70
2. Sample OP10
3. Sample order card
4. Sample telephone order form
5. Sample fax from customer
6. Sample E-mail from customer

LEARNING GUIDE: Learning Experience Sheet

Enabling Objective(s):

- Knowledge of source and location of data
- Knowledge of sales force, account reps, and customer account base
- Ability to identify missing, inconsistent or inaccurate data points
- Ability to assess your own for completeness and accuracy

Learning Experience Number Two (2):

Under supervision of a knowledgable individual, the trainee will review the receive customer complaint (invoice) flow diagram as shown in Figure 2 of Appendix 'A' page 14. The diagram indicates that when there is insufficient information the trainee will collect additional data from the Account Rep., the Account Manager, or a Claims Administrator.

The trainee will review documents which outline data sources. See information sheets for learning experience number two (2).

The trainee will review documents which outline data locations, (provided by trainer) e.g. storage location for bills of lading.

The trainee will obtain additional pricing data from sources listed by trainer. Obtain additional shipping data from sources listed by trainer.

Simulation:

The trainee will be provided with a simulation of a customer complaint which requires additional data. The simulation will require the trainee to:

- explain the source and location of data
- identify the resource person to be contracted to obtain the missing data
- outline a verbal or written request for the additional data
- assess the accuracy and completeness of the data provided through the simulation (the trainer will simulate the replies to requests for data)

The trainee will be provided with support during the simulation. The trainees will be asked to assess their own performance following the experience. The trainee will receive feedback regarding their performance and their assessment of the performance.

LEARNING GUIDE: Information Sheet

Enabling Objective(s):

- Knowledge of source and location of data
- Knowledge of sales force, account reps, and customer account base
- Ability to identify missing, inconsistent or inaccurate data points
- Ability to assess your own work for completeness

Learning Experience Number Two (2):

Samples Required for Pricing:

1. Sample purchase order
2. Sample order acknowledgement
3. Sample pricing letter
4. Excel pricing spreadsheet
5. Sample customer release report

Samples Required for Shipping:

1. Sample bill of lading
2. Sample lift ticket
3. Order history screen capture

LEARNING GUIDE: Learning Experience Sheet

Enabling Objective(s):

- Knowledge of criteria for justification
- Ability to apply justification criteria
- Ability to accept or reject claims

Learning Experience Number Three (3):

Under supervision of a knowledgeable individual the trainee will review a list of criteria (provide by the trainer) required to establish justification of customer invoice claim.

The trainer will explain the rationale for the criteria used to judge a claim and the application of the criteria. The trainee is encouraged to create their own list of criteria and match them to situations when the criteria would apply.

Case Study:

The trainee will be provided with a case scenario which sets forth a description of situation(s) which would require the application of justification criteria to resolve a claim. (The situations should be actual cases for which the decisions made are known to be acceptable).

The trainee will then make the decision based upon the application of justification criteria and explain the rationale for the decision.

The trainer will provide feedback regarding the appropriateness of the decisions made by the trainee.

Note: There are no information sheets for this learning experience.

LEARNING GUIDE: Learning Experience Sheet

Enabling Objective(s):

- Ability to perform procedural steps as outlined in the S.O.P.
- Ability to accept or reject claims

Learning Experience Number Four (4):

Under supervision of a knowledgable individual the trainee will process an actual (or simulated) customer invoice claim.

The trainee will explain the process from initiation to completion. The trainee should follow the procedure as outlined in the S.O.P. Appendix A. pages 14, 15, and 16) and provided as information to this learning experience.

The trainee will document the procedure taken and the decision made.

The trainee will assess their own performance and receive feedback from the trainer.

LEARNING GUIDE: Information Sheet

Enabling Objective(s):

- Ability to perform procedural steps as outlined in the S.O.P.
- Ability to accept or reject claims

Learning Experience Number Four (4):

For this learning experience the trainee will require the information for the procedural process as shown in Appendix 'A' to this learning guide, pages 14, 15, and 16 of the S.O.P.

NO. 3 E LINE : RECOILER SECTION -

LEARNING GUIDE: Performance Evaluation Set-Up

Note: This evaluation may be more accurate if conducted on the work site, instead of in a simulated situation.

The trainee will be provided with a customer complaint and access to all the data required to process the invoice claim to completion and resolution.

During the performance evaluation the trainee will be allowed to have access to:

1. A statement of the terminal performance standard
2. The procedural steps as outlined in the S.O.P. (Appendix A: pages 14, 15, and 16)
3. The time frame statement (approximately 30 minutes)
4. A customer complaint invoice claim which requires data collection or adjustment in order to establish justification of the claim
5. Access to the data required to process the customer complain invoice claim to resolution, including informing the customer of the decision.

LEARNING GUIDE: Performance Evaluation

Trainee's Name: _____ **Date:** _____

Learning Guide Number: Claims Resolution Learning Guide 003 **Test Attempt: 1st 2nd 3rd**

Task Code: CI101 **Prerequisites Completed: Y N**

Directions:

Give the trainee clear complete directions for taking the performance test. Provide the trainee with all resources as outlined in the Performance Evaluation Set-Up sheet.

Tell Trainees:

- what they are expected to do
- how much time they will have to perform the evaluation
- where to find materials
- what restrictions apply (can they use notes or manuals)
- what the standard of performance is.

Performance Standards:

For acceptable achievement, all items should receive a 'Yes' or 'Not Applicable' response. This performance test covers only the competency covered in this learning guide. This performance test should be conducted by a person knowledgable in the process being tested.

The evaluator will indicate in the appropriate box provided, acceptable or unacceptable for all items below. All items should receive a 'Yes', 'No', or 'Not Applicable' response.

The Trainee:

1. Assessed the customer complaint information provided, by explaining data points and their use.
   ❑ Yes ❑ No ❑ Not Applicable
2. Identified discrepancies.
   ❑ Yes ❑ No ❑ Not Applicable
3. Identified inaccuracies.
   ❑ Yes ❑ No ❑ Not Applicable
4. Indicated that the pricing on IV70 screen was not complete.
   ❑ Yes ❑ No ❑ Not Applicable
5. Indicated that the pricing on IV 70 screen did not match the support documents.
   ❑ Yes ❑ No ❑ Not Applicable
6. Explained source for missing pricing information.
   ❑ Yes ❑ No ❑ Not Applicable
7. Indicated that shipping documents were incomplete, eg. details missing from bill of lading.
   ❑ Yes ❑ No ❑ Not Applicable
8. Explained source for missing shipping data.
   ❑ Yes ❑ No ❑ Not Applicable

Continued next page.

LEARNING GUIDE: Performance Evaluation Continued

Trainee's Name: _____ **Date:** _____

Learning Guide Number: Claims Resolution Learning Guide 003 **Test Attempt: 1st 2nd 3rd**

Task Code: CI101 **Prerequisites Completed: Y N**

---

9. Explained location of missing shipping data.
   ❑ Yes ❑ No ❑ Not Applicable
10. Indicated that the complaint should be denied or accepted.
   ❑ Yes ❑ No ❑ Not Applicable
11. Outlined a procedure for notifying the customer of the decision.
   ❑ Yes ❑ No ❑ Not Applicable
12. Notified the evaluator of any pertinent information needed for a credit to the customer.
   ❑ Yes ❑ No ❑ Not Applicable
13. Followed the procedural steps as indicated in the S.O.P.
   ❑ Yes ❑ No ❑ Not Applicable

Overall Evaluation:

Performance levels. Circle on of the choices below:

4 Can perform this task without supervision and is able to resolve problems.

3 Can perform this task satisfactorily without assistance or supervision.

2 Can perform this task satisfactorily, but required some assistance and/or supervision.

1 Can perform this task satisfactorily, but required considerable assistance and/or supervision.

0 Cannot perform this task.

Evaluator's Comments: _____

_____

_____

_____

_____

Trainee's Comments: _____

_____

_____

_____

_____

_____ _____ _____

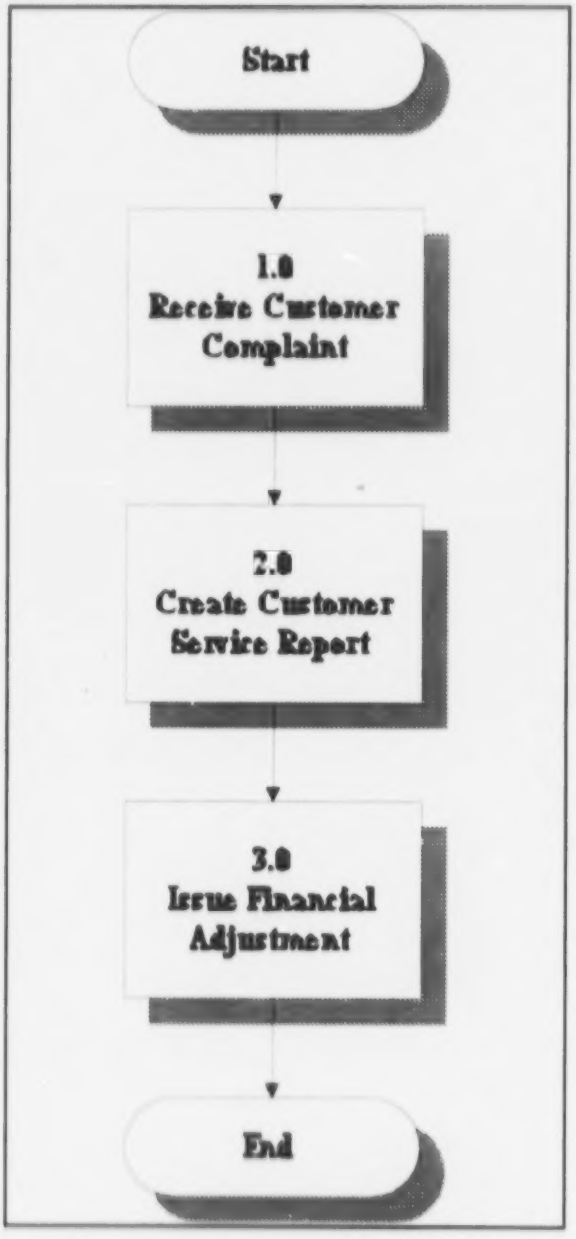
Date Evaluator's Signature Trainee's Signature

DOFASCO

BEST COPY AVAILABLE

APPENDIX A: Flowchart

Figure 1:Claims Resolution Process - Invoice Claims - High Level Flowchart



APPENDIX A: Standard Operating Procedure

4.0 Claims Resolution Process - Invoice Claims

1.0 Receive Customer Complaint

Objective:

The purpose of this activity is to receive, capture customers' complaints about pricing, shipping discrepancies and determine justification for the complaint. This information is communicated by fax or phone from the customer, or from Accounts Receivable as short/over payments on customers' accounts.

Deliverables:

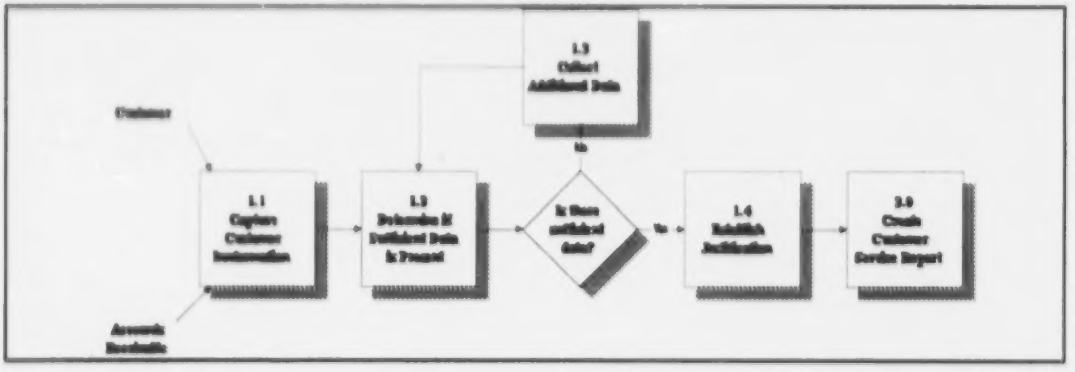
- A completed telephone/e-mail notification containing the details of a customer's complaint, referencing pricing or shipping discrepancies.
- A statement of justification (Yes or No)

Timeframe:

- Done at initial contact with customer or
- Upon receipt of Accounts Receivable notification of short/over payment

Figure 2: Receive Customer Complaint (Invoice)

From Figure 2 - Process Steps



BEST COPY AVAILABLE

1.1 Capture Customer Information

1. Write down key details of the customer's complaint. Critical information to get included the price discrepancy, weight discrepancy, invoice price, quoted price, invoice number, bill of lading number, lift number, customer name, plant location, customer purchase order, and Dofasco sales order number, date and time of call.

2. Receive printouts, "print screens" from Accounts Receivable containing customer name, invoice number and dollar amount of discrepancies.

1.2 Determine if there is Sufficient Data to Immediately Justify Claim

1. Compare information from several sources:
   For pricing: IV70 Screen (on-line invoices)
   OP10
   Order Card
   Telephone Order Form

2. Notify Claims Administrator of claims that cannot be resolved immediately and need further investigation.

1.3 Collect Additional Data

1. Collect information from additional sources where immediate justification could not be determined.
   For pricing complaints: Customers P.O. confirmation
   Dofasco order acknowledgement
   Pricing letters
   Excel pricing spreadsheet
   Customer's release report (where applicable)
   For shipping complaints: Bill of lading
   Lift tickets
   Order history screens

1.4 Establish Justification

1. Verify that a record exists to support or deny the customer's price or shipping complaint.

2. Determine justification.
3. Notify customer of decision to accept/deny the complaint.

4. Notify Claims Administrator with all pertinent information needed to determine credit:
   - Date and time complaint received
   - Invoice number
   - Correct price and/or weight
   - Claim reason (re: Standard Reasons List)

3 "E" LINE RECOILER SECTION -
RECOILING PROCEDURES

SECTION "D"

THIS SECTION DEALS WITH THE FOLLOWING SUBJECT

INITIATING AN AUTOMATIC TRANSFER

NO. 3 E LINE : RECOILER SECTION -

AUTOMATIC TRANSFER PROCEDURE

 # 4 - INITIATING AN AUTOMATIC TRANSFER

Change the Reel Selector on the Recoiler Panel to the selected reel (North or South)

#1 **#2**

REEL SELECTOR SWITCH

Has Reel Selector been changed? — **No** → back to Change the Reel Selector

Yes

PROCESS LIABILITY

AN AUTOMATIC TRANSFER CANNOT BE INITIATED IF THE LINESPEED IS UNDER 500 F.P.M.

The following will automatically occur:

1) The selected Mandrel will EXPAND.

2) The selected Thread Table will RAISE.

3) The selected Belt Wrapper will WRAP around the mandrel.

4) The selected Reel starts and accelerates to the Exit End transfer speed.

5) The Delivery End SLOWS to transfer speed.

6) The Exit Looper begins to "LOWER" to allow the process to maintain Line Speed.

7) Pinch Roll #D23 and Conveyor Rolls #D29 & #D30 "START".

Continued

61

Have all of the preceeding automatic sequences taken place ? — **NO** → STOP

If all the proceeding Sequences have not happened and all the Equipment has not performed their specific functions the Line must be immediately "SHUT DOWN" by selecting the Process Master Selector Switch to the "STOP" Position and the Delivery Master must be placed in the "JOG" Position.

YES

When Delivery End reaches Transfer Speed and the Weld is in the proper location (between Accuray head and Roll (D21), PRESS the SHEAR BUTTON

Note:
When the Reel has been selected the Exit End will slow down to between 300 to 500F.P.M. and all of the Transfer functions will begin to happen.

Note:
The Shear Button is located on the Recoiler # 2 Reel Panel.

Has SHEAR BUTTTON been pressed? — **No** → back to When Delivery End reaches Transfer Speed and the Weld is in the proper location (between Accuray head and Roll (D21), PRESS the SHEAR BUTTON

SHEAR BUTTON

Yes

62

Continued on the next page

BEST COPY AVAILABLE

NOTE: ADD 300 LBS. FOR ALL 2CR MATERIAL

3 "E" LINE RECOILER TENSIONS

WIDTH / GAUGE	24" TO 25 15/16"	26" TO 27 15/16	28" TO 29 15/16	30" TO 31 15/16	32" TO 33 15/16	34" TO 35 15/16	36" AND WIDER	WIDTH / GAUGE
.0055	925	975	1025	1075	1125	1175	1225	.0055
.0061	950	1000	1050	1100	1150	1200	1250	.0061
.0066	1000	1050	1100	1150	1200	1250	1300	.0066
.0072	1050	1100	1150	1200	1250	1300	1350	.0072
.0072	1150	1200	1250	1300	1350	1400	1450	.0072
.0083	1350	1400	1450	1500	1550	1600	1650	.0083
.0088	1450	1500	1550	1600	1650	1700	1750	.0088
.0094	1500	1550	1600	1650	1700	1750	1800	.0094
.0099	1550	1600	1650	1700	1750	1800	1850	.0099
.0105	1550	1600	1650	1700	1750	1800	1850	.0105
.0110	1600	1650	1700	1750	1800	1850	1900	.0110
.0113	1600	1650	1700	1750	1800	1850	1900	.0113
.0118	1650	1700	1750	1800	1850	1900	1950	.0118
.0123	1650	1700	1750	1800	1850	1900	1950	.0123
.0130	1700	1750	1800	1850	1900	1950	2000	.0130
.0135	1700	1750	1800	1850	1900	1950	2000	.0135
.0141	1750	1800	1850	1900	1950	2000	2050	.0141
.0149	1750	1800	1850	1900	1950	2000	2050	.0149

THE ABOVE TENSIONS ARE TO BE USED ON ALL MATERIAL EXCEPT :

1. T.F.S. .0055 AND .0061 ARE TO BE RUN 100 LBS. LESS THAN CHART TENSION
2. T.F.S. & D & I PRODUCT- SHOT BLAST FINISH (CODE 21 AND 23) TO BE RUN AT 2300 LBS.
3. BLACK PLATE .0061 TO BE RUN 100 LBS. LESS THAN CHART TENSION.

Copyright © Dofasco Inc
1996 All Rights Reserved

NO. 3 E LINE : RECOILER SECTION -
AUTOMATIC TRANSFER PROCEDURE

Continued

The following will automatically occur:

1) Pinch Roll D23 will "LOWER" down onto Roll D22 and will begin to "JOG" Forward

2) # 5 Bridle Snubber Rolls will "LOWER". to the Strip in the Bridle Rolls so the Strip is not pulled back into the Exit Looper

3) The Shear Snubber Rolls D23 & D32 will "LOWER" and begin to "JOG" forward

4) The Deflector Plate located after the Shear will change position so that the Strip will be directed to the Selected Reel.

5) The Strip is fed by the Pinch rolls D22 & D23 and the moving Conveyer Belt and the Snubber Rolls D26 & D32 to the selected rotating Mandrel

6)The Belt Wrapper tightly wraps the Strip around the Mandrel.

7) When there is 3 to 4 Wraps of Steel on the Mandrel the Belt Wrapper & the Thread Table will automatically retract and come "OFF" the Mandrel

8) At this point the Shear Snubber Rolls D23 & D32 and the Bridle Snubber Rolls will come "OFF" the Strip.

9) The Delivery End then goes into "OVERSPEED" and the Exit Looper begins to empty and the Exit Looper returns to the TOP LEVEL (Green Zone)

10) When the Exit Looper returns to the "NORMAL" position, the Delivery End "SLOWS" to Line Speed

Note:
The Tension Adjust Rheostats for both Reels are located in the upper left corner of the # 2 Reel Panel. Use tension for width & gauge of the coil running as per the Tension Chart located on the following page.

Adjust the Exit Tension for the product running by turning the Tension Rheostat for the selected reel while observing the Exit Tension Meter

Has Exit Tension been adjusted?

No

Yes

Continued on next page

NO. 3 E LINE : RECOILER SECTION -

AUTOMATIC TRANSFER PROCEDURE

Continued

WHEN TO TRANSFER :

1) All coils should be produced to Customer Specifications as per the order (i.e. weight, weld or no welds, or buildup in inches. All of this information can be obtained from the E-Line Line-Ups.

2) All coils should be free of all visible defects.

3) Transfer and run defective material as a "Reject". When the defect clears, transfer and start a new coil.

4) Do not join coils of different size, gauge, order numbers, or catalogue numbers.DO NOT run 90,000 SERIES Coils together as the Defect contained in each 90,000 Series coil may differ.

TO TRANSFER AT A WELD :

As a Line Weld or a Prep Weld comes through the Line, it passes through a Weld Detector which is located on top of the Line just before #4 Bridle.

1) An Alarm will "SOUND" on the Recoiler Panel.

2) The Green Weld Indicator Light on the # 2 Reel Panel will "ILLUMINATE".

3) The "TRANSFER" must begin by Selecting the Reel Selector Switch to the # 1 or # 2 Reel WHEN the "GREEN" Weld Indicator light on the Recoiler Panel goes "OUT".

4) The Shear Button must be PRESSED as the Weld passes the Pinhole Detector Frame and before it reaches the Deflector Roll (D 21) so that the Weld is on the OUTSIDE WRAP of the finished Coil..

5) If the "SHEAR BUTTON " is pressed too soon the Weld will end up on the inside of the new coil A "REJECT" must be made as the Weld at the Eye of a Coil could cause Production Delays at Dofasco's Customers Plants.

6) The process speed affects the operation of the "Green" Weld Indicator Light. When the process is running at less than full speed, the Weld must be sighted as it reaches and passes the last two Exit Looper Rolls in the Exit Looper The Recoiler Operator MUST begin the Transfer Procedures by selecting the Reel Selector Switch to the #1 OR #2 REEL as the Weld reaches the FINAL Looper Roll and before the Weld reaches #5 Bridle

This section is complete

3 "E" LINE RECOILER SECTION -
RECOILING PROCEDURES

SECTION "E"

THIS SECTION DEALS WITH THE FOLLOWING SUBJECT

INITIATING A MANUAL TRANSFER

WHEN THE EXIT LOOPER HAS FILLED TO THE FINAL LIMIT SWITCH
(RED ZONE) AND THE LINE HAS SHUT DOWN FROM THIS FAULT

NO. 3 E LINE : RECOILER SECTION -

INITIATING A MANUAL TRANSFER.

TO MAKE A MANUAL TRANSFER

After the Process stops, the Exit Looper must be manually raised from the "RED" Stop position to the "AMBER" position

Note:
The Tower Position Lights are on the right side of the Recoiler Panel.

Note:
IWhen making a Transfer and the Shear Button is pushed too late or the Exit End Kicks Out, the Exit Looper will fill to the LOWEST LEVEL (RED ZONE)and will hit the lower limit switch which will slow down and then stop the Process Section. The Tower Position Meter will go below 25% and at this point the Recoiler Operator must begin to manually bring the Looper Car above and out of the Lowest Limit which is about 25%.

Is the Exit Looper below the 25% level

No

Yes

Place the REEL SELECTOR SWITCH in the NEUTRAL POSITION between the #1 & #2 position

NEUTRAL POSITION

#2 #1

REEL SELECTOR SWITCH

Note
The Reel Selector Switch is located on the upper left side of the Recoiler Panel

Is Reel Selector Switch in the NEUTRAL position?

No

Yes

The # 5 Bridle Snubbers must be placed in the "DOWN" position so they are in contact with the Strip and the Bridle Rolls

AUTO

DOWN UP

5 BRIDLE SNUBBERS SELECTOR SWITCH

Are the snubbers in the "DOWN" position

No

Yes

Note:
The Pinhole Detector Controls are located on the Exit PCR wall in the Recoiler Booth.

Retract the PINHOLE DETECTORS (NORTH & SOUTH)

PINHOLE INDICATOR LIGHT

LIGHT SHIELDS

RETRACT AUTOMATIC

TEST

REMOTE COUNTER 800-B-130 CS

Have Pinhole Detectors been retracted?

No

Yes

Continued on next page

3ERECO5.VSD PG5
95/05/23

NO. 3 E LINE : RECOILER SECTION -

MANUAL TRANSFER PROCEDURE

Continued

JOG #5 Bridle "FORWARD" with Bridle Jog Selector Switch & JOG the Mandrel "FORWARD" with the push button for the selected mandrel in unison

Note:
Watch for slack between #5 Bridle and the Mandrel as it can fold over and jam the Strip in #5 Bridle Rolls.

Has #5 Bridle & Mandrel been jogged forward?

No

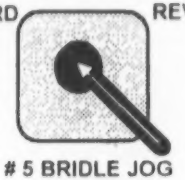
Yes

When the Tower is in the "AMBER" position, place the Reel Selector Switch to a specific Reel

Is Reel Selector Switch selected to a specific Reel?

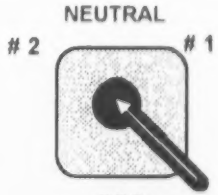
No

Yes



5 BRIDLE JOG SELECTOR SWITCH

REEL JOG



REEL SELECTOR SWITCH

When the Exit Looper Car has been raised above 30% the Recoiler Operator must Reset the Exit Looper by first raising the TOWER CLAMPS

Have the TOWER CLAMPS been raised ?

No

Yes

The Recoiler Operator must watch the TOWER TENSION AMP METER until the METER reaches 100 AMPS

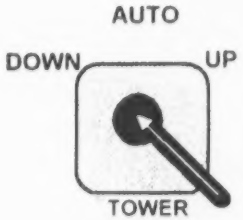
Has the Tower Tension reached 100 AMPS

No

Yes

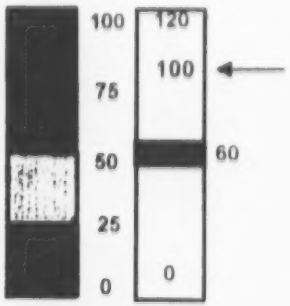
continued on the next page

Note:
The Delivery End will "start" and bring the Exit Looper to the normal run position.



TOWER CLAMPS SELECTOR SWITCH

NOTE
The Tower Tension Amp Meter is located on the #1 Reel Panel by the Process Emergency Stop Button.



DELIVERY TOWER

73

74

3ERECO5.VSD PG6
95/05/24

#3 E LINE RECOILER SECTION -

INITIATING A MANUAL TRANSFER

Continued

At this point, quickly release the Tower Jog Switch and "push" the Tension Reset button.

Has the Reset Button been pushed?

No

Yes

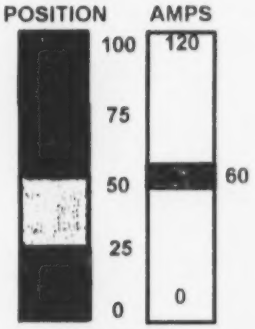
Quickly release the Tower Clamp Switch to the Neutral (up) position.

Has the Tower Clamp been released to the neutral (up) position?

No

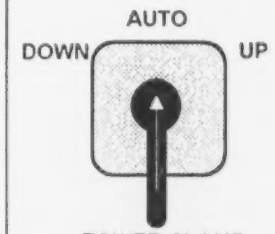
Yes

NOTE
The Tower Tension Amp Meter is located on the #1 Reel Panel by the Process Emergency Stop Button.



DELIVERY TOWER

TENSION RESET BUTTON



TOWER CLAMP SELECTOR SWITCH

Turn the Tower Master Switch to the "ON" position.

Is the Tower Master Switch selected to the "ON" position?

No

Yes

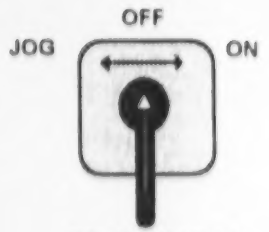
Turn the Delivery Master Switch to the "JOG" position and then back to the "RUN" position to complete the resetting of the delivery end.

Has the Delivery End been reset?

No

Yes

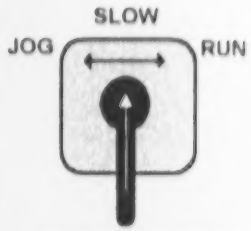
Continued on next page



TOWER MASTER SELECTOR SWITCH

STOP

If the Looping Tower Reset was successful, the Tower Tension Meter should drop to the run aim setting of 60 amps. If the preset tension does not set up at 60 amps, make adjustments to this setting by turning the Tower Tension Adjust Rheostat to the run aim of 60 amperes. If the reset was unsuccessful, the Tension Meter will drop to "zero" and the Recoiler Operator will have to begin this procedure again.



DELIVERY MASTER SELECTOR SWITCH

BEST COPY AVAILABLE

#3 E LINE RECOILER SECTION-

INITIATING A MANUAL TRANSFER

Continued

The Tower Position Selector Switch must be selected and set in the #4 position.

Has the Tower Position Switch been selected and set in the #4 position?

No

Yes

A final check must be made of the #5 Bridle Snubber Rolls to ensure they are "OFF" the Bridle Rolls.

Are the Bridle Snubber Rolls off the Bridle Rolls?

No

Yes

STOP

PROCESS LIABILITY
It is critical to the line operation that the Tower Position be selected and set in the #4 position as it will be impossible to transfer to a new coil when the line has sped up as there will not be enough strip in the Looper to complete the transfer procedure.

STOP Process Liability

If the Bridle Snubber Rolls are not TAKEN OFF there will be a multitude of PUNCH MARKS PUNCHING DOWN ACROSS THE STRIP

The recoiler operator must verify that the "reset" has been accomplished by manually checking the Exit Permissive Lights are indicating a Reset has been achieved.

Are the lights on indicating a Reset?

No

Yes

To further verify that a "Reset" has been accomplished at the Exit End of #3 E Line, the Recoiler operator must observe the following conditions have been achieved.

This Section is complete. To verify that a RESET has been achieved refer to the RESET VERIFICATION SECTION of this Job Aid.

LOCATION: Exit Permissive Lights are located on the Exit Powerhouse.

NOTE: If a reset has been achieved, two green lights will be activated giving a visual indication that the exit end has been reset.

rscsec9 vsd 01/25/96

BEST COPY AVAILABLE

3 "E" LINE RECOILER SECTION -
RECOILING PROCEDURES

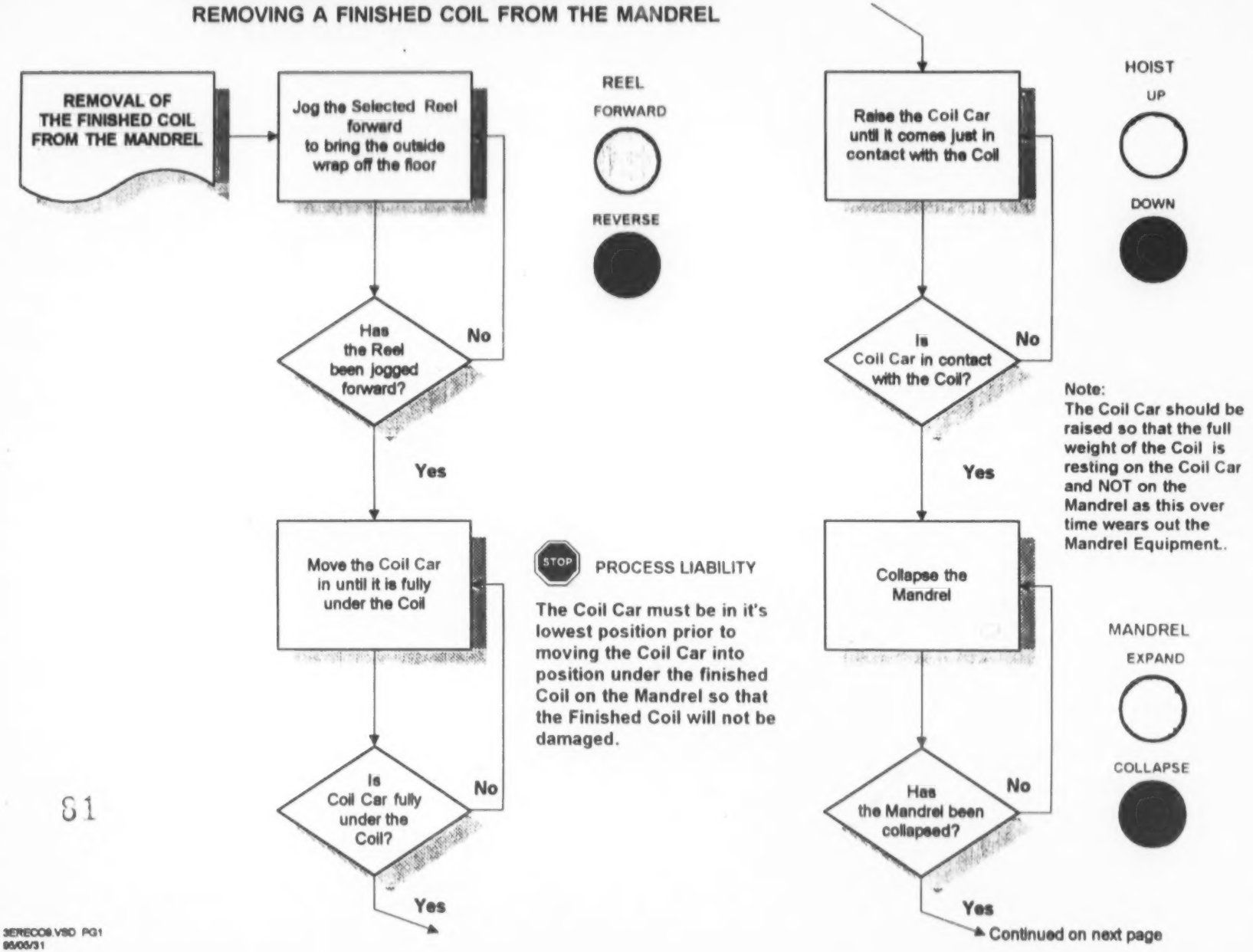
SECTION "G"

THIS SECTION DEALS WITH THE FOLLOWING SUBJECT

REMOVING THE FINISHED COIL FROM THE MANDREL

NO.3 E LINE : RECOILER SECTION -

REMOVING A FINISHED COIL FROM THE MANDREL


REMOVAL OF THE FINISHED COIL FROM THE MANDREL
Jog the Selected Reel forward to bring the outside wrap off the floor
REEL
FORWARD
REVERSE
Has the Reel been jogged forward?
No
Yes
Move the Coil Car in until it is fully under the Coil
STOP
PROCESS LIABILITY
The Coil Car must be in it's lowest position prior to moving the Coil Car into position under the finished Coil on the Mandrel so that the Finished Coil will not be damaged.
Is Coil Car fully under the Coil?
No
Yes
Raise the Coil Car until it comes just in contact with the Coil
HOIST
UP
DOWN
Is Coil Car in contact with the Coil?
No
Yes
Note:
The Coil Car should be raised so that the full weight of the Coil is resting on the Coil Car and NOT on the Mandrel as this over time wears out the Mandrel Equipment.
Collapse the Mandrel
MANDREL
EXPAND
COLLAPSE
Has the Mandrel been collapsed?
No
Yes
Continued on next page

S1

S2

3ERECO8.VSD PG1
95/05/31

NO.3 E LINE : RECOILER SECTION-

REMOVING A FINISHED COIL FROM THE MANDREL

Continued

Use COIL CAR "Out" to remove the Coil from the Mandrel

Has the Coil been removed from the Mandrel?

No

Yes

When the Coil is clear of the Mandrel, and has moved out past the END OF THE COIL CAR RAMP raise the Hoist until the Coil Car is at least 8 " above the Coil Car Bumper Pads.

Is the Coil 8" above the Coil Car Bumper Pads?

No

Yes

COIL CAR

IN

OUT

COIL CAR

IN

OUT

Rotate the COIL CAR to the "LEFT" or to the "RIGHT"

Has the Coil Car been rotated?

No

Yes

When the Coil Car is at the end of the Coil Car Ramp , lower the Coil Car Hoist to the Coil Car Bumper Pads so the finished Coil is resting on the Coil Ramp Pads.

Has the Hoist been lowered?

No

Yes

Continued on next page

LEFT RIGHT

COIL CAR ROTATE SELECTOR SWITCH

STOP PROCESS LIABILITY

Note:
The Coil Car will not rotate unless it is raised about 8 " above the Coil Car Ramp and has been moved OUT past the End of the Coil car Ramp as the Limit Switches will restrict the rotatation of the Coil Car. The Hoist will not lower while the Coil Car is rotating.

HOIST

UP

DOWN

BEST COPY AVAILABLE

NO.3 E LINE : RECOILER SECTION -

REMOVING A FINISHED COIL FROM THE MANDREL

Continued

After the Coil has been picked up by the Tractor, move the Coil Car in to the end of the Coil Car Pit

Is Coil Car located at the end of Coil Car Pit?

No

Yes

Place the correct size Sleeve at the correct distance from the East Edge of the empty Mandrel

Has the Sleeve been positioned correctly for the size required?

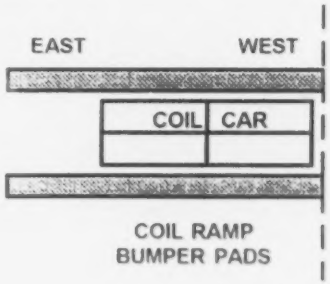
No

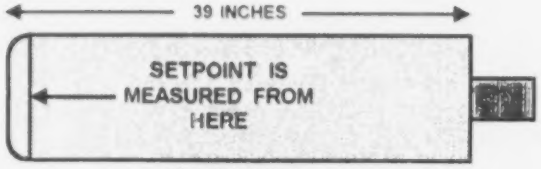
Yes

3ERECO8.VSD PG3
95/05/31

The "Coil Car" position must be checked prior to Start-Up. If the Coil Car is taken in too far on the Coil Ramp and goes beyond the limit switch, the Belt Wrapper and Thread Table will not activate. The Recoiler Operator will not be able to make a transfer when the line is started up and the Recoiler Operator initiates a transfer from one Reel to the other Reel.

Note: It is important to remember that the Coil Car SHOULD NOT BE taken in too far West. The West Edge of the Coil Car must not extend past the Coil Ramp Bumpers





#2 MANDREL

SETPOINT	SLEEVE SIZE	SETPOINT	SLEEVE SIZE
10"	29"	5"	34"
9"	30"	4"	35"
8"	31"	3"	36"
7"	32"	2"	37"
6"	33"	1"	38"

Expand the Mandrel to hold the Sleeve in the proper placement

Is Mandrel holding the Sleeve in the proper position?

No

Yes

This section is complete

STOP **PROCESS LIABILITY**

The Mandrel MUST be EXPANDED as soon as possible after the Sleeve has been positioned on the Mandrel as the vibration of the Mandrel Housing will cause the Sleeve to move out of position.

DACUM COMPETENCY PROFILE - DOFASCO

Coordinator Wage & Salary Administration - Human Resources

April 26, & 27, 1995

Director

Manager

Team Leader

COORDINATOR WAGE & SALARY ADMINISTRATION

Senior Management | H.R. Assistant | Administrator | All Employees

Team Development | Financial | Management

H.R. Reps | External Consultants | Government Agencies | Hamilton Salary Survey Group

External Organizations (Companies)

DACUM COMPETENCY PROFILE FOR COORDINATOR WAGE & SALARY ADMINISTRATION - HUMAN RESOURCES
DOFASCO INC.

EVALUATE JOBS	Investigate Evaluation Requests A-1 4 4 4 64	Analyze Job Descriptions A-2 6 4 5 120	Conduct Job Site Visit A-3 3 5 5 75	Facilitate Job Evaluation Session A-4 3 2 2 12	Analyze Job Evaluation Data A-5 6 6 6 216	Analyze CWS Factors A-6 6 6 6 216	Process Job Descriptions A-7 4 4 4 64	Conduct Job Comparison Analysis A-8 6 6 6 216
	Conduct Interview with Employee / Supervisor A-9 4 5 6 120	Negotiate Wage Classification A-10 4 5 4 80	Develop Job Evaluation Justification A-11 4 6 6 144	Obtain Approval for Wage Classification A-12 4 6 2 48	Process Approval Form A-13 4 4 2 32			
COORDINATE EXTERNAL WAGE & SALARY SURVEYS	Conduct Job Market Assessment B-1 2 3 4 24	Review Job Descriptions B-2 2 4 4 32	Identify Job Matches B-3 2 4 4 32	Complete Survey Questionnaires B-4 2 4 4 32	Assimilate Survey Data B-5 2 4 2 16	Review Summary Data B-6 2 5 5 50	Present Results to Senior Management B-7 2 4 4 32	
CONDUCT INTERNAL WAGE & SALARY SURVEYS	Investigate Survey Requirements C-1 2 4 4 32	Determine Job Market C-2 2 4 4 32	Develop Survey Criteria C-3 2 3 4 24	Develop Survey Format C-4 2 3 4 24	Select Participants C-5 2 3 4 24	Administer Survey C-6 2 3 2 12	Compile Survey Results C-7 2 5 4 40	Analyze Survey Data C-8 2 5 5 50
	Prepare Survey Report C-9 2 4 5 40							
DEVELOP WAGE & SALARY GUIDELINES AND POLICIES	Identify Outdated Policies and Guidelines D-1 2 5 4 40	Research Data from Internal / External Sources D-2 2 4 4 32	Develop Draft Policy Document D-3 3 3 4 36	Update Compensation Handbook D-4 2 3 2 12	Implement Guidelines D-5 3 4 4 48	Maintain Pay Equity Policy D-6 1 5 3 15	Update Salary / Hourly Rates D-7 1 5 3 15	
CONDUCT INFORMATION SESSIONS	Determine Needs of Business Units / Departments E-1 3 4 4 48	Develop Presentation Content E-2 2 4 4 32	Prepare Information and Materials for Presentation E-3 3 4 4 48	Schedule Presentation E-4 3 2 2 12	Deliver Presentations to External and Internal Groups E-5 1 6 6 36	Facilitate Focus Groups E-6 2 6 6 72	Follow-up on Employees' Questions and Concerns E-7 3 5 6 90	Compile Summary Report for Management E-8 1 5 5 25
PARTICIPATE IN SPECIAL PROJECTS	Develop Project Scope F-1 4 3 4 48	Identify Resource Requirements F-2 1 3 2 6	Analyze Project Objectives F-3 4 5 5 100	Develop Working Budget F-4 2 3 2 12	Develop Timelines F-5 2 2 4 16	Identify Milestones F-6 1 4 4 16	Assist in Project Roll Out F-7 1 6 6 36	
PERFORM GENERAL ACTIVITIES	Monitor Trends and Legislative Changes G-1 6 5 6 180	Archive Old Files G-2 6 2 3 36	Prepare Charts / Spreadsheets G-3 3 3 3 27	Generate Quarterly Status Reports G-4 1 5 1 5	Administer Safety Contacts G-5 3 5 1 15	Participate in Staff Meetings G-6 4 4 3 48	Conduct On-The-Job Training for New Coordinators G-7 5 5 5 125	Maintain Filing Systems G-8 1 5 3 15

Chart Code: Human Resources (HR-6) Rev. 09/95 This Chart is for Sample Purposes Only Approval to Copy: Yes

BEST COPY AVAILABLE

Behaviours, Attitudes, & Traits
Tactful
Honest
Professional
Empathic
Sense of Humour
Organized
Analytical
Logical
Diplomatic
Motivated
Team Player
Decisive
Assertive
Maintain Confidentiality

Skills & Knowledge
Bachelor Degree or Equivalent
2-4 Years Related Experience
Interpersonal Skills
Presentation Skills
Communication Skills
Organizational Skills
Negotiation Skills
Project Management Skills
Analytical Skills
Time Management Skills
Computer Skills
Math Skills
Evaluation Skills
Company Plant Process Knowledge
Company Policy Knowledge
Safety Knowledge
Budget Knowledge
Payroll Knowledge
Pay Equity Knowledge
Training Skills

Tools, Equipment & Supplies
Voice Mail / Telephone
PC and Mainframe Computers
People Soft Program
Computer Accessories & Software
Calculator
Overhead Projector
Photocopier
Fax Machine
CWS Factors Manual
WYATT Evaluation Manual
CWS Benchmarking Books
Personal Desk Supplies
Shredder
Personal Safety Equipment
Dofasco Policy Manual
External Survey Documents (APEO)

Future Trends
Audit System
New Variable Compensation Plans
Pay for Skills
Increased Market Comparisons
Increased Wage & Salary Surveys

Sponsor:
Rob Cooper

Panel:
Rose Almonte
Tom Glandson
Stephanie Luszczewski
Alex Connell

Facilitators:
John Hart
Krystyna McLennan